

=> fil reg

FILE 'REGISTRY' ENTERED AT 14:24:50 ON 30 SEP 2004
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PLEASE SEE "HELP USAGETERMS" FOR DETAILS.
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Property values tagged with IC are from the ZIC/VINITI data file
provided by InfoChem.

STRUCTURE FILE UPDATES: 29 SEP 2004 HIGHEST RN 754169-63-6
DICTIONARY FILE UPDATES: 29 SEP 2004 HIGHEST RN 754169-63-6

TSCA INFORMATION NOW CURRENT THROUGH MAY 21, 2004

Please note that search-term pricing does apply when
conducting SmartSELECT searches.

Crossover limits have been increased. See HELP CROSSOVER for details.

Experimental and calculated property data are now available. For more
information enter HELP PROP at an arrow prompt in the file or refer
to the file summary sheet on the web at:
<http://www.cas.org/ONLINE/DBSS/registryss.html>

=> d l85 ide can tot

L85 ANSWER 1 OF 4 REGISTRY COPYRIGHT 2004 ACS on STN

RN 81623-30-5 REGISTRY

CN 2(3H)-Furanone, dihydro-4-[(R)-hydroxy(4-hydroxy-3-methoxyphenyl)methyl]-3-
[(4-hydroxy-3-methoxyphenyl)methyl]-, (3R,4R)- (9CI) (CA INDEX NAME)

OTHER CA INDEX NAMES:

CN 2(3H)-Furanone, dihydro-4-[hydroxy(4-hydroxy-3-methoxyphenyl)methyl]-3-[(4-
hydroxy-3-methoxyphenyl)methyl]-, [3R-[3 α ,4 β (R*)]]-

OTHER NAMES:

CN (-)-allo-Hydroxymatairesinol

CN 5-Allohydroxymatairesinol

CN Allohydroxymatairesinol

FS STEREOSEARCH

MF C20 H22 O7

CI COM

LC STN Files: BEILSTEIN*, CA, CAPLUS, CASREACT, CHEMCATS, TOXCENTER,
USPATFULL

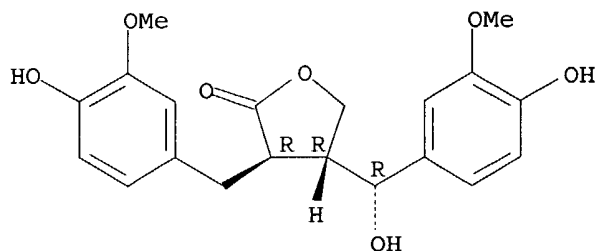
(*File contains numerically searchable property data)

DT.CA CAplus document type: Journal; Patent

RL.P Roles from patents: BIOL (Biological study); RACT (Reactant or
reagent); USES (Uses)

RL.NP Roles from non-patents: ANST (Analytical study); BIOL (Biological
study); OCCU (Occurrence); PREP (Preparation); PROC (Process); PRP
(Properties); RACT (Reactant or reagent); USES (Uses)

Absolute stereochemistry. Rotation (-).



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

21 REFERENCES IN FILE CA (1907 TO DATE)

21 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 141:156949

REFERENCE 2: 141:6955

REFERENCE 3: 139:197289

REFERENCE 4: 139:128028

REFERENCE 5: 139:117269

REFERENCE 6: 139:117267

REFERENCE 7: 139:8300

REFERENCE 8: 138:4458

REFERENCE 9: 135:166155

REFERENCE 10: 133:235125

L85 ANSWER 2 OF 4 REGISTRY COPYRIGHT 2004 ACS on STN

RN 78473-71-9 REGISTRY

CN 2(3H)-Furanone, dihydro-3,4-bis[(3-hydroxyphenyl)methyl]-,
(3R,4R)-rel- (9CI) (CA INDEX NAME)

OTHER CA INDEX NAMES:

CN 2(3H)-Furanone, dihydro-3,4-bis[(3-hydroxyphenyl)methyl]-, trans-

OTHER NAMES:

CN (±)-enterolactone

CN Enterolactone

CN HPMF

CN trans-2,3-Bis(3-hydroxybenzyl)-γ-butyrolactone

FS STEREOSEARCH

DR 76721-88-5, 82580-69-6, 110872-76-9

MF C18 H18 O4

CI COM

LC STN Files: AGRICOLA, ANABSTR, BEILSTEIN*, BIOBUSINESS, BIOSIS,
BIOTECHNO, CA, CAPLUS, CASREACT, CHEMCATS, CSCHEM, DDFU, DRUGU, EMBASE,
IPA, MRCK*, NAPRALERT, PROMT, TOXCENTER, USPAT2, USPATFULL
(*File contains numerically searchable property data)

DT.CA Caplus document type: Conference; Dissertation; Journal; Patent

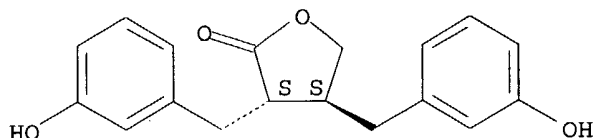
RL.P Roles from patents: ANST (Analytical study); BIOL (Biological study);
FORM (Formation, nonpreparative); OCCU (Occurrence); PREP (Preparation);
PROC (Process); RACT (Reactant or reagent); USES (Uses)

RLD.P Roles for non-specific derivatives from patents: BIOL (Biological
study); PREP (Preparation); USES (Uses)

RL.NP Roles from non-patents: ANST (Analytical study); BIOL (Biological study); FORM (Formation, nonpreparative); OCCU (Occurrence); PREP (Preparation); PROC (Process); PRP (Properties); RACT (Reactant or reagent); USES (Uses)

RLD.NP Roles for non-specific derivatives from non-patents: BIOL (Biological study); FORM (Formation, nonpreparative); OCCU (Occurrence); PROC (Process)

Relative stereochemistry.



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

225 REFERENCES IN FILE CA (1907 TO DATE)

6 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA

228 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 141:222809

REFERENCE 2: 141:212883

REFERENCE 3: 141:206960

REFERENCE 4: 141:105811

REFERENCE 5: 141:104518

REFERENCE 6: 141:103196

REFERENCE 7: 141:99221

REFERENCE 8: 141:53197

REFERENCE 9: 140:420066

REFERENCE 10: 140:399547

L85 ANSWER 3 OF 4 REGISTRY COPYRIGHT 2004 ACS on STN

RN 20268-71-7 REGISTRY

CN 2(3H)-Furanone, dihydro-4-[(S)-hydroxy(4-hydroxy-3-methoxyphenyl)methyl]-3-[(4-hydroxy-3-methoxyphenyl)methyl]-, (3R,4R)- (9CI) (CA INDEX NAME)

OTHER CA INDEX NAMES:

CN 2(3H)-Furanone, dihydro-4-(α -hydroxyvanillyl)-3-vanillyl- (8CI)

CN 2(3H)-Furanone, dihydro-4-[hydroxy(4-hydroxy-3-methoxyphenyl)methyl]-3-[(4-hydroxy-3-methoxyphenyl)methyl]-, [3R-[3 α ,4 β (S*)]]-

OTHER NAMES:

CN (-)-Hydroxymatairesinol

CN α -Hydroxymatairesinol

CN 5-Hydroxymatairesinol

CN Hydroxymatairesinol

FS STEREOSEARCH

DR 29764-17-8

MF C20 H22 O7

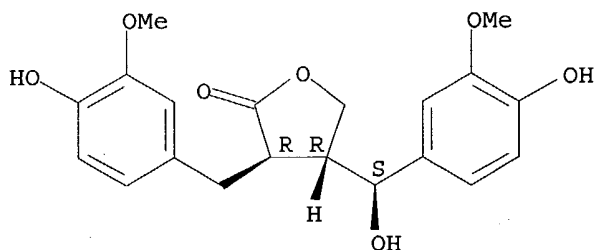
CI COM

LC STN Files: AGRICOLA, ANABSTR, BEILSTEIN*, BIOSIS, CA, CAPLUS, CASREACT, CHEMCATS, IPA, NAPRALERT, PIRA, TOXCENTER, USPAT2, USPATFULL

(*File contains numerically searchable property data)

DT.CA CAPLUS document type: Conference; Journal; Patent
 RL.P Roles from patents: BIOL (Biological study); OCCU (Occurrence); PREP (Preparation); PROC (Process); RACT (Reactant or reagent); USES (Uses)
 RLD.P Roles for non-specific derivatives from patents: BIOL (Biological study); PREP (Preparation); USES (Uses)
 RL.NP Roles from non-patents: ANST (Analytical study); BIOL (Biological study); OCCU (Occurrence); PREP (Preparation); PROC (Process); PRP (Properties); RACT (Reactant or reagent); USES (Uses)

Absolute stereochemistry. Rotation (-).



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

65 REFERENCES IN FILE CA (1907 TO DATE)
 3 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
 65 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 141:156949
 REFERENCE 2: 141:99221
 REFERENCE 3: 141:6955
 REFERENCE 4: 140:219654
 REFERENCE 5: 140:110360
 REFERENCE 6: 140:65203
 REFERENCE 7: 139:197289
 REFERENCE 8: 139:179927
 REFERENCE 9: 139:179926
 REFERENCE 10: 139:128028

L85 ANSWER 4 OF 4 REGISTRY COPYRIGHT 2004 ACS on STN

RN 580-72-3 REGISTRY

CN 2(3H)-Furanone, dihydro-3,4-bis[(4-hydroxy-3-methoxyphenyl)methyl]-,
 (3R,4R)- (9CI) (CA INDEX NAME)

OTHER CA INDEX NAMES:

CN 2(3H)-Furanone, dihydro-3,4-bis[(4-hydroxy-3-methoxyphenyl)methyl]-,
 (3R-trans)-

CN 2(3H)-Furanone, dihydro-3,4-divanillyl- (8CI)

CN Matairesinol (6CI)

OTHER NAMES:

CN (-)-Matairesinol

CN (8R,8'R)-(-)-Matairesinol

FS STEREOSEARCH

DR 41328-88-5

MF C20 H22 O6

CI COM

LC STN Files: AGRICOLA, ANABSTR, BEILSTEIN*, BIOBUSINESS, BIOSIS, BIOTECHNO, CA, CANCERLIT, CAOLD, CAPLUS, CASREACT, CHEMCATS, CSCHM, DDFU, DRUGU, EMBASE, IPA, MEDLINE, NAPRALERT, PIRA, PROMT, SPECINFO, TOXCENTER, USPAT2, USPATFULL

(*File contains numerically searchable property data)

DT.CA Caplus document type: Conference; Journal; Patent

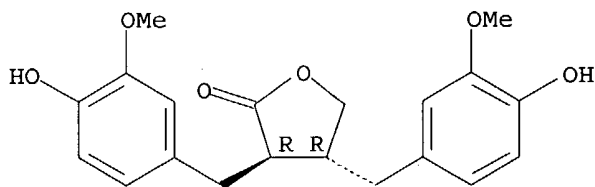
RL.P Roles from patents: BIOL (Biological study); OCCU (Occurrence); PREP (Preparation); PRP (Properties); RACT (Reactant or reagent); USES (Uses)

RLD.P Roles for non-specific derivatives from patents: BIOL (Biological study); PREP (Preparation); USES (Uses)

RL.NP Roles from non-patents: ANST (Analytical study); BIOL (Biological study); FORM (Formation, nonpreparative); MSC (Miscellaneous); OCCU (Occurrence); PREP (Preparation); PROC (Process); PRP (Properties); RACT (Reactant or reagent); USES (Uses); NORL (No role in record)

RLD.NP Roles for non-specific derivatives from non-patents: BIOL (Biological study); OCCU (Occurrence)

Absolute stereochemistry. Rotation (-).



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

283 REFERENCES IN FILE CA (1907 TO DATE)

6 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA

286 REFERENCES IN FILE CAPLUS (1907 TO DATE)

6 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

REFERENCE 1: 141:206960

REFERENCE 2: 141:139670

REFERENCE 3: 141:139321

REFERENCE 4: 141:105811

REFERENCE 5: 141:99221

REFERENCE 6: 141:53096

REFERENCE 7: 141:6955

REFERENCE 8: 141:6381

REFERENCE 9: 140:411264

REFERENCE 10: 140:399547

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L86 ANSWER 1 OF 2 REGISTRY COPYRIGHT 2004 ACS on STN

RN 9003-99-0 REGISTRY

CN Peroxidase (9CI) (CA INDEX NAME)

OTHER NAMES:

CN Baylase RP

CN Biobake soy

CN Biobake Wheat

CN Coniferyl alcohol peroxidase

CN E.C. 1.11.1.7

CN Enzylon OL 50

CN Eosinophil peroxidase

CN Extensin peroxidase

CN Guaiacol peroxidase

CN Guaiacolase

CN Heme peroxidase

CN Lactoperoxidase

CN Manganese-dependent peroxidase

CN Mn-dependent peroxidase

CN MPO

CN Myeloperoxidase

CN Novozym 502

CN Oxyperoxidase

CN PEO-131

CN Peroxidase 51004

CN Protoheme peroxidase

CN Pyrocatechol peroxidase

CN Pyrogallol peroxidase

CN Scavengase p20

CN Scopoletin peroxidase

CN SP 502

CN Thiocyanate peroxidase

CN Thiol peroxidase

CN Verdoperoxidase

DR 9013-92-7, 9039-19-4, 191289-36-8

MF Unspecified

CI COM, MAN

LC STN Files: ADISNEWS, AGRICOLA, ANABSTR, BIOBUSINESS, BIOSIS, BIOTECHNO,
CA, CAPLUS, CASREACT, CBNB, CEN, CHEMCATS, CHEMINFORMRX, CHEMLIST, CIN,
CSCHEM, CSNB, DDFU, DRUGU, EMBASE, IFICDB, IFIPAT, IFIUDB, IPA, MEDLINE,
MSDS-OHS, NAPRALERT, NIOSHTIC, PIRA, PROMT, TOXCENTER, ULIDAT, USPAT2,
USPATFULL

Other Sources: EINECS**, TSCA**

(**Enter CHEMLIST File for up-to-date regulatory information)

DT.CA Caplus document type: Book; Conference; Dissertation; Journal; Patent;
Preprint; Report

RL.P Roles from patents: ANST (Analytical study); BIOL (Biological study);
FORM (Formation, nonpreparative); MSC (Miscellaneous); OCCU
(Occurrence); PREP (Preparation); PROC (Process); PRP (Properties); RACT
(Reactant or reagent); USES (Uses); NORL (No role in record)

RLD.P Roles for non-specific derivatives from patents: ANST (Analytical
study); BIOL (Biological study); CMBI (Combinatorial study); OCCU
(Occurrence); PREP (Preparation); PROC (Process); PRP (Properties); RACT
(Reactant or reagent); USES (Uses)

RL.NP Roles from non-patents: ANST (Analytical study); BIOL (Biological
study); FORM (Formation, nonpreparative); MSC (Miscellaneous); OCCU
(Occurrence); PREP (Preparation); PROC (Process); PRP (Properties); RACT
(Reactant or reagent); USES (Uses); NORL (No role in record)

RLD.NP Roles for non-specific derivatives from non-patents: ANST (Analytical
study); BIOL (Biological study); FORM (Formation, nonpreparative); MSC
(Miscellaneous); OCCU (Occurrence); PREP (Preparation); PROC (Process);
PRP (Properties); RACT (Reactant or reagent); USES (Uses)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

36557 REFERENCES IN FILE CA (1907 TO DATE)

2318 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA

36631 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 141:230712

REFERENCE 2: 141:230109

REFERENCE 3: 141:225960

REFERENCE 4: 141:224708

REFERENCE 5: 141:224317

REFERENCE 6: 141:224282

REFERENCE 7: 141:224278

REFERENCE 8: 141:224172

REFERENCE 9: 141:223221

REFERENCE 10: 141:223005

L86 ANSWER 2 OF 2 REGISTRY COPYRIGHT 2004 ACS on STN

RN 7782-44-7 REGISTRY

CN Oxygen (8CI, 9CI) (CA INDEX NAME)

OTHER NAMES:

CN Dioxygen

CN Molecular oxygen

CN Oxygen molecule

FS 3D CONCORD

DR 1338-93-8, 14797-70-7, 80217-98-7, 80937-33-3

MF O2

CI COM

LC STN Files: ADISNEWS, AGRICOLA, ANABSTR, BIOBUSINESS, BIOSIS, BIOTECHNO,
CA, CABA, CANCERLIT, CAPLUS, CASREACT, CBNB, CEN, CHEMCATS,
CHEMINFORMRX, CHEMLIST, CHEMSAFE, CIN, CSCHM, CSNB, DDFU, DETHERM*,
DIOGENES, DIPPR*, DRUGU, EMBASE, ENCOMPLIT, ENCOMPLIT2, ENCOMPPAT,
ENCOMPPAT2, GMELIN*, HSDB*, IFICDB, IFIPAT, IFIUDB, IPA, MEDLINE, MRCK*,
MSDS-OHS, NIOSHTIC, PDLCOM*, PIRA, PROMT, PS, RTECS*, SPECINFO,
TOXCENTER, TULSA, ULIDAT, USAN, USPAT2, USPATFULL, VTB

(*File contains numerically searchable property data)

Other Sources: DSL**, EINECS**, TSCA**

(**Enter CHEMLIST File for up-to-date regulatory information)

DT.CA CAplus document type: Book; Conference; Dissertation; Journal; Patent;
Preprint; ReportRL.P Roles from patents: ANST (Analytical study); BIOL (Biological study);
CMBI (Combinatorial study); FORM (Formation, nonpreparative); MSC
(Miscellaneous); OCCU (Occurrence); PREP (Preparation); PROC (Process);
PRP (Properties); RACT (Reactant or reagent); USES (Uses); NORL (No role
in record)RLD.P Roles for non-specific derivatives from patents: ANST (Analytical
study); BIOL (Biological study); FORM (Formation, nonpreparative); MSC
(Miscellaneous); OCCU (Occurrence); PREP (Preparation); PROC (Process);
PRP (Properties); RACT (Reactant or reagent); USES (Uses)RL.NP Roles from non-patents: ANST (Analytical study); BIOL (Biological
study); CMBI (Combinatorial study); FORM (Formation, nonpreparative);
MSC (Miscellaneous); OCCU (Occurrence); PREP (Preparation); PROC
(Process); PRP (Properties); RACT (Reactant or reagent); USES (Uses);
NORL (No role in record)

RLD.NP Roles for non-specific derivatives from non-patents: ANST (Analytical

study); BIOL (Biological study); CMBI (Combinatorial study); FORM (Formation, nonpreparative); MSC (Miscellaneous); OCCU (Occurrence); PREP (Preparation); PROC (Process); PRP (Properties); RACT (Reactant or reagent); USES (Uses)

O=O

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

349327 REFERENCES IN FILE CA (1907 TO DATE)
27975 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
349909 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 141:235211
REFERENCE 2: 141:235146
REFERENCE 3: 141:235138
REFERENCE 4: 141:234918
REFERENCE 5: 141:234912
REFERENCE 6: 141:234833
REFERENCE 7: 141:234796
REFERENCE 8: 141:234727
REFERENCE 9: 141:234726
REFERENCE 10: 141:234500

=> d his

(FILE 'HOME' ENTERED AT 13:25:41 ON 30 SEP 2004)
SET COST OFF

L1 FILE 'HCAPLUS' ENTERED AT 13:26:09 ON 30 SEP 2004
1 S US20030100514/PN OR US2001-991971#/AP,PRN

L2 FILE 'REGISTRY' ENTERED AT 13:26:42 ON 30 SEP 2004
3 S 580-72-3 OR 20268-71-7 OR 78473-71-9
E C20H2207/MF
E C20H2207/MF

L3 37 S E3 AND 46.150.18/RID AND OC4/ES AND 3/NR

L4 26 S L3 AND 3 METHOXY

L5 26 S L4 AND 4 HYDROXY

L6 21 S L5 AND FURANONE

SEL RN 1 6 7 8 10 11 16 20

L7 8 S E1-E8

L8 7 S L7 NOT 718614-97-2

SEL RN 4 5

L9 5 S L8 NOT E9-E10

L10 32 S L3 NOT L9

E C20H2206/MF

L11 56 S E3 AND OC4/ES AND 46.150.18/RID AND 3/NR

L12 12 S L11 AND 4 HYDROXY AND 3 METHOXY AND FURANONE

L13 4 S L12 NOT (D/ELS OR 13C# OR LABELED)

E C18H18O4/MF
L14 37 S E3 AND OC4/ES AND 46.150.18/RID AND 3/NR
L15 8 S L14 AND 3 HYDROXY AND BIS AND FURANONE
L16 5 S L15 NOT (D/ELS OR LABELED OR 13C)
L17 14 S L2,L9,L13,L16
L18 9 S L17 AND (?MATAIRESINOL? OR ?ENTEROLACTON?)/CNS
L19 5 S L17 NOT L18
L20 14 S L17-L19
SEL RN
L21 8 S E1-E14/CRN

FILE 'HCAPLUS' ENTERED AT 13:39:29 ON 30 SEP 2004

L22 527 S L20
L23 583 S ENTEROLACTON? OR HYDROXYMATAIRESINOL? OR MATAIRESINOL?
L24 640 S L22,L23
E AHOTUPA M/AU
L25 91 S E3-E5
E ERIKSSON J/AU
L26 221 S E3-E11,E34-E36
E KANGAS L/AU
L27 127 S E3-E5,E8-E11
E UNKILA M/AU
L28 48 S E3-E5
E KOMI J/AU
L29 12 S E3-E6
E PERALA M/AU
L30 21 S E3,E4,E6
E KORTE H/AU
L31 23 S E3,E4,E10
E HORMOS/PA,CS
L32 27 S E3-E19
L33 16 S L24 AND L25-L32
E PHAGOCYTE/CT
L34 3427 S E3,E12
E E12+ALL
E E2+ALL
L35 32274 S E5+NT
E NEUTROPHIL/CT
E E3+ALL
L36 29239 S E24,E23
E T CELL/CT
E E4+ALL
L37 40180 S E20-E23
L38 70058 S E19+NT
E E18+ALL
L39 169033 S E19,E18+NT
E MYELOID/CT
E E11+ALL
L40 2697 S E2
L41 4 S L24 AND L34-L40
E ANIMAL RESPIRATION/CT
L42 1613 S E3 (L) BURST
E RESPIRATION, ANIMAL/CT
L43 1421 S E4
E REACTIVE OXYGEN/CT
E E4+ALL
L44 22365 S E3
L45 2 S L24 AND L42-L44

FILE 'REGISTRY' ENTERED AT 14:09:41 ON 30 SEP 2004

L46 1 S OXYGEN/CN

FILE 'HCAPLUS' ENTERED AT 14:09:52 ON 30 SEP 2004

L47 1 S L24 AND L46
E LIGNAN/CT
E E4+ALL
L48 356 S L24 AND E2
L49 356 S L24 AND E2+NT
L50 4 S L41,L45,L47
L51 1 S L50 AND L33
L52 3 S L50 AND L48,L49
L53 4 S L50-L52
L54 65 S L20 (L) (THU OR DMA OR PAC OR PKT)/RL
L55 160 S L24 AND (PHARMACEUT? OR PHARMACOL? OR PATHOL? OR IMMUN?)/SC,S
L56 164 S L54,L55
L57 9 S L56 AND L33
L58 3 S L56 AND L53
L59 4 S L53,L58
L60 8 S L57 NOT L59

FILE 'REGISTRY' ENTERED AT 14:15:46 ON 30 SEP 2004

L61 1 S 9003-99-0

FILE 'HCAPLUS' ENTERED AT 14:15:57 ON 30 SEP 2004

L62 2 S L61 AND L24
L63 1 S L24 AND MYELOPEROXIDASE
L64 6 S L24 AND ?PEROXIDASE?
L65 6 S L62-L64
L66 17 S L59,L60,L65
L67 14 S L66 AND (PD<=20011126 OR PRD<=20011126 OR AD<=20011126)
L68 3 S L66 NOT L67
SEL DN AN 1 3 9 11 12 14 L67
L69 8 S L67 NOT E1-E18
L70 11 S L68,L69
E TRANPLANTATION/CT
E TRANSPLANTATION/CT
L71 812 S E3
E TRANSPLANT/CT
L72 494 S E3
L73 87407 S E5+OLD,NT,PFT,RT
L74 5085 S E61
L75 76222 S E69+OLD,NT,PFT,RT
L76 812 S E72,E74
E E3+ALL
E E2+ALL
L77 7719 S E7-E16
L78 35079 S E6+NT
L79 6674 S E43+NT
L80 30585 S E42+NT
L81 5 S L24 AND L71-L80
L82 4 S L81 NOT AROMATASE/TI
L83 14 S L70,L82 AND L1,L22-L45,L47-L60,L62-L82
SEL HIT RN

FILE 'REGISTRY' ENTERED AT 14:24:16 ON 30 SEP 2004

L84 6 S E1-E6
L85 4 S L84 AND L20
L86 2 S L84 AND L61,L46

FILE 'REGISTRY' ENTERED AT 14:24:50 ON 30 SEP 2004

=> fil hcaplus

FILE 'HCAPLUS' ENTERED AT 14:25:17 ON 30 SEP 2004

USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.

PLEASE SEE "HELP USAGETERMS" FOR DETAILS.

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FILE COVERS 1907 - 30 Sep 2004 VOL 141 ISS 14
FILE LAST UPDATED: 29 Sep 2004 (20040929/ED)

This file contains CAS Registry Numbers for easy and accurate substance identification.

=> d l83 all hitstr tot

L83 ANSWER 1 OF 14 HCAPLUS COPYRIGHT 2004 ACS on STN
AN 2004:738451 HCAPLUS
ED Entered STN: 10 Sep 2004
TI Lignans and neolignans useful as cathepsin inhibitors, and their use
IN Jean, Daniel; Rabhi, Cherif; Schwaab, Veronique
PA LMD, Fr.
SO Fr. Demande, 24 pp.
CODEN: FRXXBL
DT Patent
LA French
IC ICM A61K031-357
ICS A61K031-343; C07D319-20; C07D307-80; C07D407-10; A61P035-00;
C07D319-00; C07D307-00
CC 1-12 (Pharmacology)
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	FR 2851919	A1	20040910	FR 2003-2584	20030303
	WO 2004080379	A2	20040923	WO 2004-FR504	20040303
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW:	BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				

PRAI FR 2003-2584 A 20030303

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
FR 2851919	ICM	A61K031-357
	ICS	A61K031-343; C07D319-20; C07D307-80; C07D407-10; A61P035-00; C07D319-00; C07D307-00

AB The invention discloses the use of lignans and neolignans as inhibitors of cathepsins. The compds. of the invention may be used e.g. to inhibit metastases and as hepatoprotectants.

ST cathepsin inhibitor lignan neolignan; metastasis inhibition
hepatoprotection lignan cathepsin inhibitor

IT INDEXING IN PROGRESS

IT Cytoprotective agents
(hepatoprotective; lignan and neolignan cathepsin inhibitors, and use)

IT Toxicity
(hepatotoxicity; lignan and neolignan cathepsin inhibitors, and use)

IT Antitumor agents

Cosmetics

Feed

Fish

Food

Human

Organ preservation

Pangium edule
(lignan and neolignan cathepsin inhibitors, and use)

IT Proteins
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(lignan and neolignan cathepsin inhibitors, and use)

IT **Lignans**
Natural products, pharmaceutical

Neolignans
RL: COS (Cosmetic use); FFD (Food or feed use); PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(lignan and neolignan cathepsin inhibitors, and use)

IT Neoplasm
(metastasis; lignan and neolignan cathepsin inhibitors, and use)

IT Liver
(toxicity; lignan and neolignan cathepsin inhibitors, and use)

IT 9004-08-4, Cathepsin 9047-22-7, Cathepsin B 60616-82-2, Cathepsin L
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(lignan and neolignan cathepsin inhibitors, and use)

IT 77053-44-2P, Americanin B 77053-45-3P, Americanin D 133838-66-1P, Isoamericanol A 214344-43-1P
RL: COS (Cosmetic use); FFD (Food or feed use); NPO (Natural product occurrence); PAC (Pharmacological activity); PUR (Purification or recovery); THU (Therapeutic use); BIOL (Biological study); OCCU (Occurrence); PREP (Preparation); USES (Uses)
(lignan and neolignan cathepsin inhibitors, and use)

IT **580-72-3, Matairesinol** 29388-59-8,
Secoisolariciresinol 59332-00-2, Eusiderin
RL: COS (Cosmetic use); FFD (Food or feed use); PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study);
USES (Uses)
(lignan and neolignan cathepsin inhibitors, and use)

RE.CNT 8 THERE ARE 8 CITED REFERENCES AVAILABLE FOR THIS RECORD

- RE
- (1) Cassidy, A; WO 02080702 A 2002 HCAPLUS
 - (2) Eckerman, C; WO 0059946 A 2000 HCAPLUS
 - (3) Ford, J; PLANT POLYPHENOLS 2: CHEMISTRY, BIOLOGY, PHARMACOLOGY, ECOLOGY 1999, P675 HCAPLUS
 - (4) Gu, W; TETRAHEDRON LETTERS 2000, V41(32), P6079 HCAPLUS
 - (5) Madaus & Co Dr; GB 2035300 A 1980 HCAPLUS
 - (6) Matsumoto, K; TETRAHEDRON LETTERS 1999, V40(16), P3185 HCAPLUS
 - (7) Merck & Co Inc; EP 0159565 A 1985 HCAPLUS
 - (8) Sampath, K; US 6489514 B1 2002 HCAPLUS

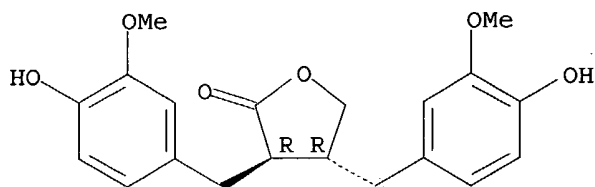
IT INDEXING IN PROGRESS

IT **580-72-3, Matairesinol**
RL: COS (Cosmetic use); FFD (Food or feed use); PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study);
USES (Uses)
(lignan and neolignan cathepsin inhibitors, and use)

RN 580-72-3 HCAPLUS

CN 2(3H)-Furanone, dihydro-3,4-bis[(4-hydroxy-3-methoxyphenyl)methyl]-,
(3R,4R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



L83 ANSWER 2 OF 14 HCAPLUS COPYRIGHT 2004 ACS on STN

AN 2004:203863 HCAPLUS

DN 140:219654

ED Entered STN: 14 Mar 2004

TI Lignan complexes with cyclodextrins and their uses in food products,
dietary supplements or pharmaceutical compositions

IN Jaervinen, Tomi; Jarho, Pekka; **Unkila, Mikko**; Hiilovaara-teijo,
Mervi

PA **Hormos Medical Corporation, Finland**

SO PCT Int. Appl., 26 pp.

CODEN: PIXXD2

DT Patent

LA English

IC ICM C08B037-16

ICS A61K031-724; A61K031-34

CC 44-6 (Industrial Carbohydrates)

Section cross-reference(s): 17, 43, 63

FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004020474	A1	20040311	WO 2003-FI511	20030624
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM			
RW:	GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG			
FI 2002001545	A	20040301	FI 2002-1545	20020829
PRAI FI 2002-1545	A	20020829		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
WO 2004020474	ICM	C08B037-16
	ICS	A61K031-724; A61K031-34

OS MARPAT 140:219654

AB This invention concerns an inclusion complex of a lignan or lignan ester with a cyclodextrin. Furthermore, the invention concerns food products, dietary supplements or pharmaceutical compns. comprising said complex.

ST inclusion complex cyclodextrin lignan food dietary pharmaceutical compn

IT **Lignans**

RL: FFD (Food or feed use); IMF (Industrial manufacture); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(cyclodextrin complexes; lignan complexes with cyclodextrin and their uses in food products, dietary supplements or pharmaceutical compns.)

IT Drugs

Health products

(lignan complexes with cyclodextrin and their uses in food products, dietary supplements or pharmaceutical compns.)

IT Inclusion compounds

RL: FFD (Food or feed use); IMF (Industrial manufacture); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(lignan complexes with cyclodextrin and their uses in food products, dietary supplements or pharmaceutical compns.)

IT 484-39-9DP, Liovil, lignan derivs., cyclodextrin complexes 487-36-5DP, Pinoresinol, lignan derivs., cyclodextrin complexes 518-55-8DP, α -Conidendrin, lignan derivs., cyclodextrin complexes 548-29-8DP, Isolariciresinol, lignan derivs., cyclodextrin complexes 580-72-3DP, Matairesinol, lignan derivs., cyclodextrin complexes 1177-14-6DP, DL-Syringaresinol, lignan derivs., cyclodextrin complexes 7585-39-9DP, β -Cyclodextrin, hydroxypropyl ether, inclusion compds. with lignans 7585-39-9DP, β -Cyclodextrin, inclusion compds. with lignans 7770-78-7DP, Arctigenin, lignan derivs., cyclodextrin complexes 10016-20-3DP, α -Cyclodextrin, inclusion compds. with lignans 17465-86-0DP, γ -Cyclodextrin, inclusion compds. with lignans 20268-71-7DP, **Hydroxymatairesinol**, lignan derivs., cyclodextrin complexes 27003-73-2DP, Lariciresinol, lignan derivs., cyclodextrin complexes 29388-59-8DP, Secoisolariciresinol, lignan derivs., cyclodextrin complexes 34444-37-6DP, Nortrachelogenin, lignan derivs., cyclodextrin complexes 53250-61-6DP, Oxomatairesinol, lignan derivs., cyclodextrin complexes 568593-01-1DP, Picearesinol, lignan derivs., cyclodextrin complexes
RL: FFD (Food or feed use); IMF (Industrial manufacture); **THU** (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(lignan complexes with cyclodextrin and their uses in food products, dietary supplements or pharmaceutical compns.)

RE.CNT 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD

RE

(1) Suntory Limited; EP 0387000 A2 1990 HCAPLUS

(2) van Uden, W; J Nat Prod 1997, V60, P401 HCAPLUS

(3) Vincieri, F; Il Farmaco 1994, V49(1), P63 HCAPLUS

IT 580-72-3DP, **Matairesinol**, lignan derivs., cyclodextrin complexes 20268-71-7DP, **Hydroxymatairesinol**, lignan derivs., cyclodextrin complexes

RL: FFD (Food or feed use); IMF (Industrial manufacture); **THU**

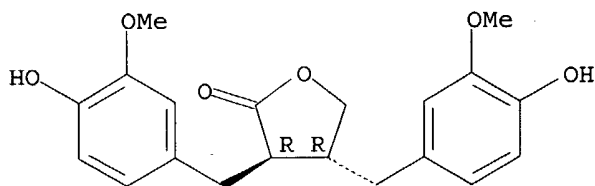
(Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(lignan complexes with cyclodextrin and their uses in food products, dietary supplements or pharmaceutical compns.)

RN 580-72-3 HCAPLUS

CN 2(3H)-Furanone, dihydro-3,4-bis[(4-hydroxy-3-methoxyphenyl)methyl]-, (3R,4R)- (9CI) (CA INDEX NAME)

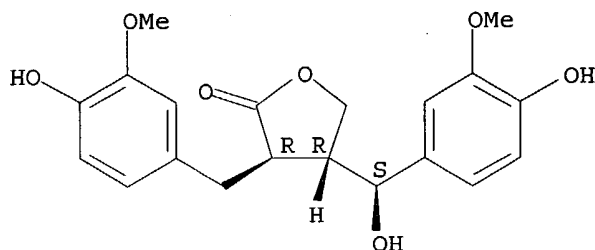
Absolute stereochemistry. Rotation (-).



RN 20268-71-7 HCAPLUS

CN 2(3H)-Furanone, dihydro-4-[(S)-hydroxy(4-hydroxy-3-methoxyphenyl)methyl]-3-[(4-hydroxy-3-methoxyphenyl)methyl]-, (3R,4R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



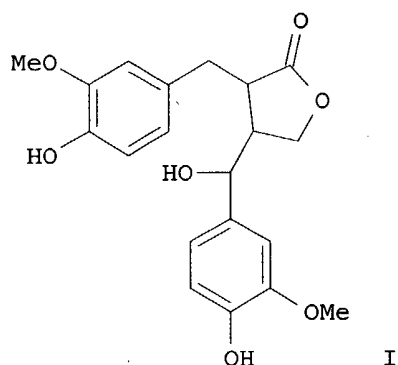
L83 ANSWER 3 OF 14 HCAPLUS COPYRIGHT 2004 ACS on STN
 AN 2004:2687 HCAPLUS
 DN 140:65203
 ED Entered STN: 02 Jan 2004
 TI Lignan topical formulations
 IN Korte, Helena; Lehtola, Veli-Matti; Unkila, Mikko;
 Hiilovaara-Teijo, Mervi; Ahotupa, Markku
 PA Hormos Nutraceutical Oy Ltd., Finland
 SO PCT Int. Appl., 25 pp.
 CODEN: PIXXD2
 DT Patent
 LA English
 IC ICM A61K031-341
 CC 63-6 (Pharmaceuticals)
 Section cross-reference(s): 62

FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004000304	A1	20031231	WO 2003-FI375	20030515
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
FI 2002001184	A	20031220	FI 2002-1184	20020619
PRAI FI 2002-1184	A	20020619		

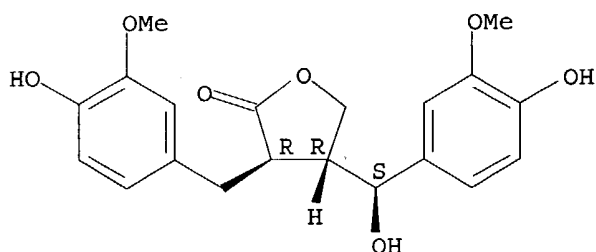
CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
WO 2004000304	ICM	A61K031-341
OS MARPAT 140:65203		
GI		



- AB This invention concerns a topical formulation comprising a lignan or lignan ester in a dermatol. acceptable vehicle. The formulation can be either a cosmetic formulation or a pharmaceutical formulation. E.g., water-in-oil emulsions contained a lignan such as **hydroxymatairesinol (I)** or **matairesinol** dibutyrate, an emulsifier such as sorbitan fatty acid ester, humectant such as glycerol, preservative, and water.
- ST lignan topical pharmaceutical cosmetic
- IT Antioxidants
Cosmetics
(lignan topical formulations)
- IT **Lignans**
RL: COS (Cosmetic use); THU (Therapeutic use); BIOL (Biological study);
USES (Uses)
(lignan topical formulations)
- IT Drug delivery systems
(topical; lignan topical formulations)
- IT 484-39-9, Liovil 487-36-5, Pinoresinol 518-55-8, α -Conidendrin 548-29-8, Isolariciresinol 1177-14-6 7770-78-7, Arctigenin 20268-71-7, **Hydroxymatairesinol** 27003-73-2, Lariciresinol 29388-59-8, Secoisolariciresinol 34444-37-6, Nortrachelogenin 53250-61-6, Oxomatairesinol 568593-01-1, Picearesinol
RL: COS (Cosmetic use); **THU (Therapeutic use)**; BIOL (Biological study); USES (Uses)
(lignan topical formulations)
- RE.CNT 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD
- RE
(1) Cedars-Sinai Medical Center; WO 0103687 A2 2001 HCAPLUS
(2) Unilever N V; WO 0108651 A1 2001 HCAPLUS
- IT **20268-71-7, Hydroxymatairesinol**
RL: COS (Cosmetic use); **THU (Therapeutic use)**; BIOL (Biological study); USES (Uses)
(lignan topical formulations)
- RN 20268-71-7 HCAPLUS
- CN 2(3H)-Furanone, dihydro-4-[(S)-hydroxy(4-hydroxy-3-methoxyphenyl)methyl]-3-[(4-hydroxy-3-methoxyphenyl)methyl]-, (3R,4R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



L83 ANSWER 4 OF 14 HCAPLUS COPYRIGHT 2004 ACS on STN
 AN 2003:590821 HCAPLUS
 DN 139:128028
 ED Entered STN: 01 Aug 2003
 TI Method for prevention of diseases in coeliac patients
 IN **Unkila, Mikko**
 PA Finland
 SO U.S. Pat. Appl. Publ., 5 pp.
 CODEN: USXXCO
 DT Patent
 LA English
 IC ICM A61K031-70
 ICS A61K035-78
 NCL 514022000; 514025000; 424769000
 CC 1-9 (**Pharmacology**)
 FAN.CNT 1

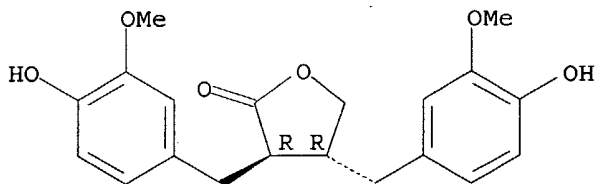
	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 2003144216	A1	20030731	US 2002-54900	20020125
	WO 2003061649	A1	20030731	WO 2003-FI6	20030107
	W:				
	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,				
	CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH,				
	GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR,				
	LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH,				
	PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ,				
	UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD,				
	RU, TJ, TM				
	RW:				
	GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG,				
	CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC,				
	NL, PT, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW,				
	ML, MR, NE, SN, TD, TG				
PRAI	US 2002-54900	A	20020125		

CLASS

	PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
	US 2003144216	ICM	A61K031-70
		ICS	A61K035-78
		NCL	514022000; 514025000; 424769000
AB	Methods for prevention of cancers, precancers, certain non-cancer, hormone dependent diseases and/or cardiovascular diseases in a person suffering from coeliac disease, based on administering of a lignan to the person. A method for increasing the level of enterolactone or another metabolite of a lignan in a person's serum is also disclosed, where the person suffers from coeliac disease, thereby causing prevention of a cancer or a certain non-cancer, hormone dependent disease in the person, based on administering of a lignan to the person.		
ST	celiac disease prevention treatment		
IT	Prostate gland, disease (benign hyperplasia; method for prevention of diseases in coeliac patients)		

- IT Intestine, neoplasm
(colon; method for prevention of diseases in celiac patients)
- IT Urethra
(dyssynergia; method for prevention of diseases in celiac patients)
- IT Intestine, neoplasm
(familial polyposis; method for prevention of diseases in celiac patients)
- IT Mammary gland, disease
(gynecomastia, in men; method for prevention of diseases in celiac patients)
- IT Lipoproteins
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(low-d., oxidized; method for prevention of diseases in celiac patients)
- IT Urinary tract
(lower, disease; method for prevention of diseases in celiac patients)
- IT Cardiovascular agents
Celiac disease
Esophagus, neoplasm
Human
Mammary gland, neoplasm
Neoplasm
Prostate gland, neoplasm
Testis, neoplasm
(method for prevention of diseases in celiac patients)
- IT **Lignans**
RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(plant; method for prevention of diseases in celiac patients)
- IT Intestine, neoplasm
(small; method for prevention of diseases in celiac patients)
- IT 484-39-9, Liovil 487-36-5, Pinoresinol 518-55-8, Conidendrin 548-29-8, Isolariciresinol **580-72-3, Matairesinol** 7770-78-7, (-)-Arctigenin 11041-15-9, Conidendric acid **20268-71-7, Hydroxymatairesinol** 27003-73-2, Lariciresinol 29388-59-8, Secoisolariciresinol 34444-37-6, Nortrachelogenin 41607-20-9 53250-61-6, Oxomatairesinol **81623-30-5, Allohydroxymatairesinol** 84413-77-4, (+)-Arctigenin 568593-01-1, Picearesinol
RL: **PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)**
(method for prevention of diseases in celiac patients)
- IT **580-72-3, Matairesinol 20268-71-7, Hydroxymatairesinol 81623-30-5, Allohydroxymatairesinol**
RL: **PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)**
(method for prevention of diseases in celiac patients)
- RN 580-72-3 HCAPLUS
- CN 2(3H)-Furanone, dihydro-3,4-bis[(4-hydroxy-3-methoxyphenyl)methyl]-, (3R,4R)- (9CI) (CA INDEX NAME)

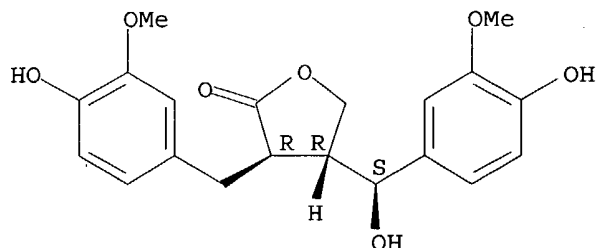
Absolute stereochemistry. Rotation (-).



RN 20268-71-7 HCAPLUS

CN 2 (3H)-Furanone, dihydro-4-[(S)-hydroxy(4-hydroxy-3-methoxyphenyl)methyl]-3-[(4-hydroxy-3-methoxyphenyl)methyl]-, (3R,4R)- (9CI) (CA INDEX NAME)

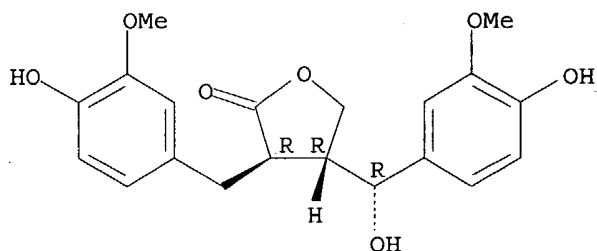
Absolute stereochemistry. Rotation (-).



RN 81623-30-5 HCAPLUS

CN 2 (3H)-Furanone, dihydro-4-[(R)-hydroxy(4-hydroxy-3-methoxyphenyl)methyl]-3-[(4-hydroxy-3-methoxyphenyl)methyl]-, (3R,4R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



L83 ANSWER 5 OF 14 HCAPLUS COPYRIGHT 2004 ACS on STN

AN 2003:414080 HCAPLUS

DN 138:379228

ED Entered STN: 30 May 2003

TI Method using lignans for inhibiting overactivity of phagocytes or lymphocytes in an individual, and therapeutic use

IN Ahotupa, Markku; Eriksson, John; Kangas, Lauri

; Unkila, Mikko; Komi, Janne; Perala, Merja;

Korte, Helena

PA Finland

SO U.S. Pat. Appl. Publ., 10 pp.

CODEN: USXXCO

DT Patent

LA English

IC ICM A61K031-365

ICS A61K031-05

NCL 514022000; 514460000; 514731000

CC 1-7 (Pharmacology)

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 2003100514	A1	20030529	US 2001-991971	20011126 <--
	WO 2003045376	A1	20030605	WO 2002-FI936	20021121 <--
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD,				

RU, TJ, TM
 RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG,
 CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL,
 PT, SE, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR,
 NE, SN, TD, TG

PRAI US 2001-991971 A 20011126 <--

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
US 2003100514	ICM	A61K031-365
	ICS	A61K031-05
	NCL	514022000; 514460000; 514731000
AB	The invention provides a method for inhibiting the overactivity of phagocytes or lymphocytes in an individual by administering to the individual an effective amount of a lignan, wherein (i) the phagocytes are neutrophils and the lignan is hydroxymatairesinol or matairesinol or mixts. thereof; or (ii) the phagocytes are cells of myeloid origin and the lignan is enterolactone or hydroxymatairesinol or mixts. thereof; or (iii) the lymphocytes are T-lymphocytes and the lignan is hydroxymatairesinol , matairesinol or enterolactone or mixts. thereof. The invention also provides a method for treating or preventing an acute ischemia-reperfusion injury or a chronic condition, caused by overactivity of phagocytes or lymphocytes in an individual, the method comprising decreasing the activity of phagocytes in an individual by administering to the individual an effective amount of a lignan.	
ST	lignan phagocyte lymphocyte overactivity inhibition therapeutic; neutrophil overactivity inhibition hydroxymatairesinol matairesinol therapeutic; myeloid cell overactivity inhibition enterolactone hydroxymatairesinol therapeutic; T lymphocyte overactivity inhibition hydroxymatairesinol matairesinol enterolactone therapeutic; ischemia reperfusion injury therapeutic lignan	
IT	Intestine, disease (Crohn's; lignans for inhibiting overactivity of phagocytes or lymphocytes, and therapeutic use)	
IT	Apoptosis (Fas-induced; lignans for inhibiting overactivity of phagocytes or lymphocytes, and therapeutic use)	
IT	Tumor necrosis factors RL: BSU (Biological study, unclassified); BIOL (Biological study) (TNF- α , release; lignans for inhibiting overactivity of phagocytes or lymphocytes, and therapeutic use)	
IT	Respiratory distress syndrome (adult; lignans for inhibiting overactivity of phagocytes or lymphocytes, and therapeutic use)	
IT	Nervous system, disease (amyotrophic lateral sclerosis; lignans for inhibiting overactivity of phagocytes or lymphocytes, and therapeutic use)	
IT	Antiarteriosclerotics (antiatherosclerotics; lignans for inhibiting overactivity of phagocytes or lymphocytes, and therapeutic use)	
IT	Respiration, animal (burst; lignans for inhibiting overactivity of phagocytes or lymphocytes, and therapeutic use)	
IT	Drugs (gastrointestinal; lignans for inhibiting overactivity of phagocytes or lymphocytes, and therapeutic use)	
IT	Shock (circulatory collapse) (hemorrhagic; lignans for inhibiting overactivity of phagocytes or lymphocytes, and therapeutic use)	
IT	Hypercholesterolemia (hypercholesterolemic atherosclerosis; lignans for inhibiting	

overactivity of phagocytes or lymphocytes, and therapeutic use)
 IT Atherosclerosis
 (hypercholesterolemic; lignans for inhibiting overactivity of
 phagocytes or lymphocytes, and therapeutic use)
 IT Allergy
 (hypersensitivity, type I and type II; lignans for inhibiting
 overactivity of phagocytes or lymphocytes, and therapeutic use)
 IT Heart, disease
 (infarction; lignans for inhibiting overactivity of phagocytes or
 lymphocytes, and therapeutic use)
 IT Intestine, disease
 (inflammatory; lignans for inhibiting overactivity of phagocytes or
 lymphocytes, and therapeutic use)
 IT Reperfusion
 (injury; lignans for inhibiting overactivity of phagocytes or
 lymphocytes, and therapeutic use)
 IT Diabetes mellitus
 (insulin-dependent; lignans for inhibiting overactivity of phagocytes
 or lymphocytes, and therapeutic use)
 IT Heart, disease
 (ischemia; lignans for inhibiting overactivity of phagocytes or
 lymphocytes, and therapeutic use)
 IT AIDS (disease)
 Allergy
 Allergy inhibitors
 Alzheimer's disease
 Anti-AIDS agents
 Anti-Alzheimer's agents
 Anti-inflammatory agents
 Anti-ischemic agents
 Antiasthmatics
 Antidiabetic agents
 Antiparkinsonian agents
 Antirheumatic agents
 Antiviral agents
 Asthma
 Autoimmune disease
 Cardiovascular agents
 Cataract
 Dermatitis
 Human
 Human immunodeficiency virus
Immunosuppressants
 Inflammation
 Ischemia
Lymphocyte
 Monocyte
 Multiple sclerosis
Neutrophil
 Osteoporosis
 Parkinson's disease
Phagocyte
 Psoriasis
 Rheumatoid arthritis
T cell (lymphocyte)
Transplant and Transplantation
Transplant rejection
 (lignans for inhibiting overactivity of phagocytes or lymphocytes, and
 therapeutic use)
 IT Fas antigen
Reactive oxygen species
 RL: BSU (Biological study, unclassified); BIOL (Biological study)
 (lignans for inhibiting overactivity of phagocytes or lymphocytes, and

therapeutic use)

IT **Lignans**
RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL
(Biological study); USES (Uses)
(lignans for inhibiting overactivity of phagocytes or lymphocytes, and
therapeutic use)

IT **Hematopoietic precursor cell**
(myeloid, phagocyte of myeloid origin; lignans for
inhibiting overactivity of phagocytes or lymphocytes, and therapeutic
use)

IT Diabetes mellitus
(non-insulin-dependent; lignans for inhibiting overactivity of
phagocytes or lymphocytes, and therapeutic use)

IT Shock (circulatory collapse)
(septic; lignans for inhibiting overactivity of phagocytes or
lymphocytes, and therapeutic use)

IT Brain, disease
(stroke; lignans for inhibiting overactivity of phagocytes or
lymphocytes, and therapeutic use)

IT 7782-44-7D, Oxygen, reactive species 9003-99-0,
Myeloperoxidase
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(lignans for inhibiting overactivity of phagocytes or lymphocytes, and
therapeutic use)

IT 580-72-3, Matairesinol 20268-71-7,
Hydroxymatairesinol 78473-71-9, Enterolactone
RL: PAC (Pharmacological activity); THU (Therapeutic
use); BIOL (Biological study); USES (Uses)
(lignans for inhibiting overactivity of phagocytes or lymphocytes, and
therapeutic use)

IT 7782-44-7D, Oxygen, reactive species 9003-99-0,
Myeloperoxidase
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(lignans for inhibiting overactivity of phagocytes or lymphocytes, and
therapeutic use)

RN 7782-44-7 HCAPLUS
CN Oxygen (8CI, 9CI) (CA INDEX NAME)

O=O

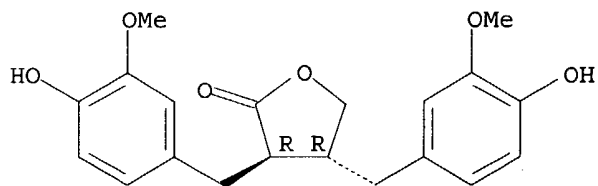
RN 9003-99-0 HCAPLUS
CN Peroxidase (9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

IT 580-72-3, Matairesinol 20268-71-7,
Hydroxymatairesinol 78473-71-9, Enterolactone
RL: PAC (Pharmacological activity); THU (Therapeutic
use); BIOL (Biological study); USES (Uses)
(lignans for inhibiting overactivity of phagocytes or lymphocytes, and
therapeutic use)

RN 580-72-3 HCAPLUS
CN 2(3H)-Furanone, dihydro-3,4-bis[(4-hydroxy-3-methoxyphenyl)methyl]-,
(3R,4R)- (9CI) (CA INDEX NAME)

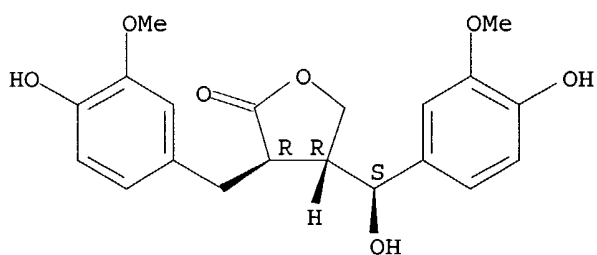
Absolute stereochemistry. Rotation (-).



RN 20268-71-7 HCAPLUS

CN 2(3H)-Furanone, dihydro-4-[(S)-hydroxy(4-hydroxy-3-methoxyphenyl)methyl]-3-[(4-hydroxy-3-methoxyphenyl)methyl]-, (3R,4R)- (9CI) (CA INDEX NAME)

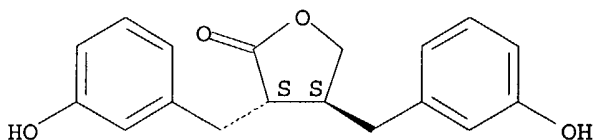
Absolute stereochemistry. Rotation (-).



RN 78473-71-9 HCAPLUS

CN 2(3H)-Furanone, dihydro-3,4-bis[(3-hydroxyphenyl)methyl]-, (3R,4R)-rel- (9CI) (CA INDEX NAME)

Relative stereochemistry.



L83 ANSWER 6 OF 14 HCAPLUS COPYRIGHT 2004 ACS on STN

AN 2002:392225 HCAPLUS

DN 136:380145

ED Entered STN: 24 May 2002

TI Prevention of cancers, non-cancerous hormone-dependent diseases, and cardiovascular diseases by use of **hydroxymatairesinol**, and a pharmaceutical preparation, food additive and food product comprising **hydroxymatairesinol**

IN **Ahotupa, Markku**; Eckerman, Christer; **Kangas, Lauri**; Makela, Sari; Saarinen, Niina; Santti, Risto; Warri, Anni

PA **Hormos Nutraceutical oy Ltd., Finland**

SO U.S. Pat. Appl. Publ., 15 pp., Cont.-in-part of U.S. Ser. No. 829,944. CODEN: USXXCO

DT Patent

LA English

IC ICM A61K031-70

ICS A61K035-78

NCL 514022000

CC 1-12 (Pharmacology)

Section cross-reference(s): 18, 63

FAN.CNT 2

PATENT NO.

KIND DATE

APPLICATION NO.

DATE

PI	US 2002061854	A1	20020523	US 2001-972850	20011010 <--
	US 6689809	B2	20040210		
	US 6451849	B1	20020917	US 1999-281094	19990330 <--
	US 2001016590	A1	20010823	US 2001-829944	20010411 <--
	US 2004048804	A1	20040311	US 2003-639530	20030813 <--
PRAI	US 1999-281094	A1	19990330	<--	
	US 2001-829944	A2	20010411	<--	
	US 2001-972850	A1	20011010	<--	

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES	
US 2002061854	ICM	A61K031-70	
	ICS	A61K035-78	
	NCL	514022000	
US 2002061854	ECLA	A23L001/30B; A61K031/365	<--
US 6451849	ECLA	A23L001/30B; A61K031/365	<--
US 2004048804	ECLA	A23L001/30B; A61K031/365	<--
AB	The invention discloses methods for prevention of cancers, certain non-cancerous, hormone-dependent diseases, and/or cardiovascular diseases in a person, based on the administration of hydroxymatairesinol . The invention also discloses a method for increasing the level of enterolactone or another metabolite of hydroxymatairesinol in a person's serum, thereby causing prevention of a cancer or a certain non-cancerous, hormone-dependent disease in a person, based on administration of hydroxymatairesinol . Furthermore, the invention discloses pharmaceutical preps., food additives, and food products comprising hydroxymatairesinol .		
ST	hydroxymatairesinol pharmaceutical food antitumor cardiovascular drug; hormone dependent disease pharmaceutical hydroxymatairesinol ; enterolactone stimulation therapeutic metabolite hydroxymatairesinol		
IT	Animal cell line (JEG-3; hydroxymatairesinol for prevention of cancers, non-cancerous hormone-dependent diseases, and cardiovascular diseases, and pharmaceutical and food products)		
IT	Animal cell line (MCF-7; hydroxymatairesinol for prevention of cancers, non-cancerous hormone-dependent diseases, and cardiovascular diseases, and pharmaceutical and food products)		
IT	Health food (and designer foods; hydroxymatairesinol for prevention of cancers, non-cancerous hormone-dependent diseases, and cardiovascular diseases, and pharmaceutical and food products)		
IT	Drug delivery systems (and nutraceuticals; hydroxymatairesinol for prevention of cancers, non-cancerous hormone-dependent diseases, and cardiovascular diseases, and pharmaceutical and food products)		
IT	Food (and pharmafoods; hydroxymatairesinol for prevention of cancers, non-cancerous hormone-dependent diseases, and cardiovascular diseases, and pharmaceutical and food products)		
IT	Avena sativa (bran; hydroxymatairesinol for prevention of cancers, non-cancerous hormone-dependent diseases, and cardiovascular diseases, and pharmaceutical and food products)		
IT	Flaxseed (flour; hydroxymatairesinol for prevention of cancers, non-cancerous hormone-dependent diseases, and cardiovascular diseases, and pharmaceutical and food products)		
IT	Antioxidants Daucus carota Glycine max		

Nutrients

Onion (*Allium cepa*)

Picea abies

Secale cereale

Solanum tuberosum

Wheat bran

(**hydroxymatairesinol** for prevention of cancers, non-cancerous hormone-dependent diseases, and cardiovascular diseases, and pharmaceutical and food products)

IT Lignans

RL: BSU (Biological study, unclassified); PAC (Pharmacological activity);

THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(**hydroxymatairesinol** for prevention of cancers, non-cancerous hormone-dependent diseases, and cardiovascular diseases, and pharmaceutical and food products)

IT Peroxidation

(lipid; **hydroxymatairesinol** for prevention of cancers, non-cancerous hormone-dependent diseases, and cardiovascular diseases, and pharmaceutical and food products)

IT Lipoproteins

RL: BSU (Biological study, unclassified); BIOL (Biological study)

(low-d., oxidation; **hydroxymatairesinol** for prevention of cancers, non-cancerous hormone-dependent diseases, and cardiovascular diseases, and pharmaceutical and food products)

IT Antitumor agents

(mammary gland; **hydroxymatairesinol** for prevention of cancers, non-cancerous hormone-dependent diseases, and cardiovascular diseases, and pharmaceutical and food products)

IT Mammary gland

(neoplasm, inhibitors; **hydroxymatairesinol** for prevention of cancers, non-cancerous hormone-dependent diseases, and cardiovascular diseases, and pharmaceutical and food products)

IT Bran

(oat; **hydroxymatairesinol** for prevention of cancers, non-cancerous hormone-dependent diseases, and cardiovascular diseases, and pharmaceutical and food products)

IT Lipids, biological studies

RL: BSU (Biological study, unclassified); BIOL (Biological study)

(peroxidn.; **hydroxymatairesinol** for prevention of cancers, non-cancerous hormone-dependent diseases, and cardiovascular diseases, and pharmaceutical and food products)

IT Peroxides, biological studies

RL: BSU (Biological study, unclassified); BIOL (Biological study)

(radicals; **hydroxymatairesinol** for prevention of cancers, non-cancerous hormone-dependent diseases, and cardiovascular diseases, and pharmaceutical and food products)

IT Wood

(soft; **hydroxymatairesinol** for prevention of cancers, non-cancerous hormone-dependent diseases, and cardiovascular diseases, and pharmaceutical and food products)

IT Diet

(supplements; **hydroxymatairesinol** for prevention of cancers, non-cancerous hormone-dependent diseases, and cardiovascular diseases, and pharmaceutical and food products)

IT 518-55-8, α -Conidendrin 9039-48-9, Aromatase 11041-15-9,

Conidendric acid 11062-77-4, Superoxide

RL: BSU (Biological study, unclassified); BIOL (Biological study)

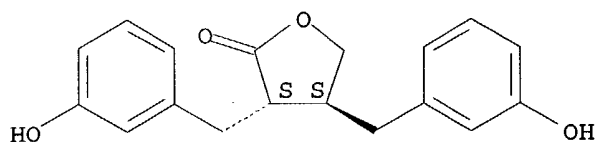
(**hydroxymatairesinol** for prevention of cancers, non-cancerous hormone-dependent diseases, and cardiovascular diseases, and pharmaceutical and food products)

IT 78473-71-9, Enterolactone 80226-00-2, Enterodiol

RL: BSU (Biological study, unclassified); PAC (Pharmacological activity); BIOL (Biological study)

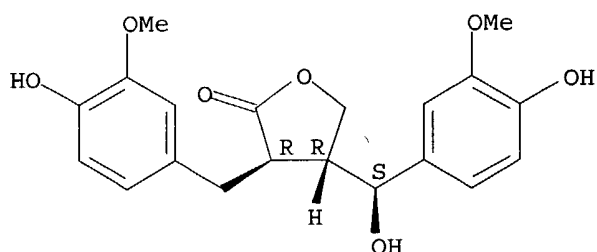
- (**hydroxymatairesinol** for prevention of cancers, non-cancerous hormone-dependent diseases, and cardiovascular diseases, and pharmaceutical and food products)
- IT 20268-71-7, **Hydroxymatairesinol**
 RL: NPO (Natural product occurrence); **PAC (Pharmacological activity)**; **THU (Therapeutic use)**; BIOL (Biological study); OCCU (Occurrence); USES (Uses)
 (**hydroxymatairesinol** for prevention of cancers, non-cancerous hormone-dependent diseases, and cardiovascular diseases, and pharmaceutical and food products)
- IT 117-39-5, Quercetin 128-37-0, BHT, biological studies 491-54-3, Kaempferide 520-18-3, Kaempferol 25013-16-5, BHA 53188-07-1, Trolox 380448-80-6
 RL: **PAC (Pharmacological activity)**; BIOL (Biological study)
 (**hydroxymatairesinol** for prevention of cancers, non-cancerous hormone-dependent diseases, and cardiovascular diseases, and pharmaceutical and food products)
- IT 20268-71-7D, **Hydroxymatairesinol**, (stereo)isomers
 RL: **PAC (Pharmacological activity)**; **THU (Therapeutic use)**; BIOL (Biological study); USES (Uses)
 (**hydroxymatairesinol** for prevention of cancers, non-cancerous hormone-dependent diseases, and cardiovascular diseases, and pharmaceutical and food products)
- IT 78473-71-9, **Enterolactone**
 RL: BSU (Biological study, unclassified); **PAC (Pharmacological activity)**; BIOL (Biological study)
 (**hydroxymatairesinol** for prevention of cancers, non-cancerous hormone-dependent diseases, and cardiovascular diseases, and pharmaceutical and food products)
- RN 78473-71-9 HCAPLUS
 CN 2 (3H)-Furanone, dihydro-3,4-bis[(3-hydroxyphenyl)methyl]-, (3R,4R)-rel-(9CI) (CA INDEX NAME)

Relative stereochemistry.



- IT 20268-71-7, **Hydroxymatairesinol**
 RL: NPO (Natural product occurrence); **PAC (Pharmacological activity)**; **THU (Therapeutic use)**; BIOL (Biological study); OCCU (Occurrence); USES (Uses)
 (**hydroxymatairesinol** for prevention of cancers, non-cancerous hormone-dependent diseases, and cardiovascular diseases, and pharmaceutical and food products)
- RN 20268-71-7 HCAPLUS
 CN 2 (3H)-Furanone, dihydro-4-[(S)-hydroxy(4-hydroxy-3-methoxyphenyl)methyl]-3-[(4-hydroxy-3-methoxyphenyl)methyl]-, (3R,4R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



IT 20268-71-7D, Hydroxymatairesinol, (stereo)isomers

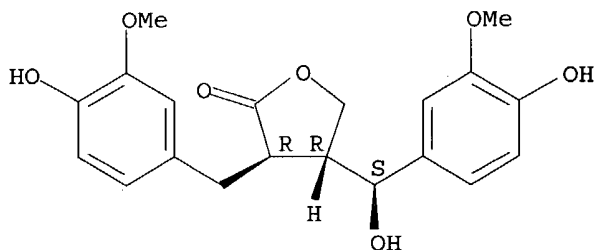
RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(hydroxymatairesinol for prevention of cancers, non-cancerous hormone-dependent diseases, and cardiovascular diseases, and pharmaceutical and food products)

RN 20268-71-7 HCAPLUS

CN 2(3H)-Furanone, dihydro-4-[(S)-hydroxy(4-hydroxy-3-methoxyphenyl)methyl]-3-[(4-hydroxy-3-methoxyphenyl)methyl]-, (3R,4R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



L83 ANSWER 7 OF 14 HCAPLUS COPYRIGHT 2004 ACS on STN

AN 2001:922174 HCAPLUS

DN 136:291701

ED Entered STN: 21 Dec 2001

TI Immunosuppressive constituents from Saussurea medusa

AU Duan, Hongquan; Takaishi, Yoshihisa; Momota, Hiroshi; Ohmoto, Yasukazu; Taki, Takao

CS Faculty of Pharmaceutical Sciences, University of Tokushima, Tokushima, 770-8505, Japan

SO Phytochemistry (2002), 59(1), 85-90

CODEN: PYTCAS; ISSN: 0031-9422

PB Elsevier Science Ltd.

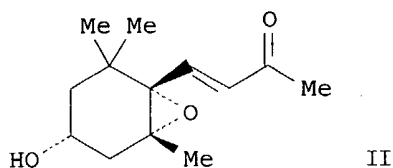
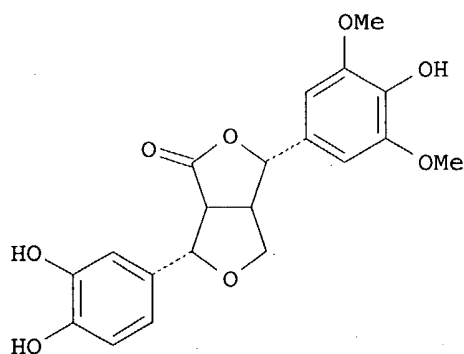
DT Journal

LA English

CC 11-1 (Plant Biochemistry)

Section cross-reference(s): 26

GI



- AB The methanol extract of *Saussurea medusa* Maxim afforded two lignans: (e.g. I) and 1-hydroxy-2,4-guaicyl-3,7-dioxabicyclo[3.3.0]octane; two chlorophyll derivs.: 13-epi-phaeophorbide-a and 13-epi-phaeophorbide-a Me ester; one megastigmane derivative: 3-hydroxy-5,6-epoxy-7-megastigmen-9-one (II), along with 19 known comps. Their structures were established on the basis of spectroscopic studies.
- ST lignan chlorophyll megastigmane deriv *Saussurea* immunosuppressant
- IT Chlorophylls, biological studies
- RL: BSU (Biological study, unclassified); NPO (Natural product occurrence); PAC (Pharmacological activity); PRP (Properties); PUR (Purification or recovery); BIOL (Biological study); OCCU (Occurrence); PREP (Preparation)
- (derivs.; immunosuppressive constituents from *Saussurea medusa*)
- IT **Immunosuppressants**
- Saussurea medusa*
- (immunosuppressive constituents from *Saussurea medusa*)
- IT **Lignans**
- RL: BSU (Biological study, unclassified); NPO (Natural product occurrence); PAC (Pharmacological activity); PRP (Properties); PUR (Purification or recovery); BIOL (Biological study); OCCU (Occurrence); PREP (Preparation)
- (immunosuppressive constituents from *Saussurea medusa*)
- IT Cytokines
- RL: BSU (Biological study, unclassified); BIOL (Biological study)
- (inhibition effect on cytokinins of immunosuppressive constituents from *Saussurea medusa*)
- IT New natural products
- (lignans, chlorophyll derivs. and megastigmane derivative from *Saussurea medusa*)
- IT Molecular structure, natural product
- (of lignans, chlorophyll derivs. and megastigmane derivative from *Saussurea medusa*)
- IT 64070-09-3P, 13-epi-Phaeophorbide-a methyl ester 78964-31-5P, 13-epi-Phaeophorbide-a 175418-93-6P 408513-60-0P 408513-62-2P, 1 α -Hydroxy-2 α ,4 α -guaicyl-3,7-dioxabicyclo[3.3.0]octane
- RL: BSU (Biological study, unclassified); NPO (Natural product occurrence); PAC (Pharmacological activity); PRP (Properties); PUR (Purification or recovery); BIOL (Biological study); OCCU (Occurrence); PREP (Preparation)
- (immunosuppressive constituents from *Saussurea medusa*)

IT 487-36-5, (+)-Pinoresinol 580-72-3, Matairesinol
 603-17-8, Pheophytin a 3147-18-0, Pheophytin b 5594-30-9, Methyl
 phaeophorbide a 5989-02-6, Loliolide 6216-81-5, Lirioresinol B
 7770-78-7, Arctigenin 15664-29-6, Phaeophorbide a 20240-17-9
 20362-31-6, Arctiin 24404-50-0, Epipinoresinol 27003-73-2,
 Lariciresinol 29388-59-8, Secoisolariciresinol 40957-99-1,
 (+)-Medioresinol 79733-01-0 79733-03-2 99305-01-8 126882-59-5,
 (-)-Berchemol

RL: BSU (Biological study, unclassified); PAC (Pharmacological
 activity); BIOL (Biological study)

(immunosuppressive constituents from Saussurea medusa)

IT 408512-16-3P

RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
 (preparation and properties of)

RE.CNT 16 THERE ARE 16 CITED REFERENCES AVAILABLE FOR THIS RECORD

- RE
- (1) Briggs, L; Journal of Chemical Society (C) 1968, P3042 HCAPLUS
 - (2) Chan, Y; Chemical and Pharmaceutical Bulletin 1999, V47, P887 HCAPLUS
 - (3) Duan, H; Phytochemistry 2000, V53, P805 HCAPLUS
 - (4) Fang, J; Phytochemistry 1989, V28, P3553 HCAPLUS
 - (5) Fonseca, S; Phytochemistry 1978, V17, P499
 - (6) Hodges, R; Tetrahedron 1964, V20, P1463 HCAPLUS
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 - (8) Kobayashi, M; Chemical and Pharmaceutical Bulletin 1991, V39, P3348 HCAPLUS
 - (9) Li, Y; Phytochemistry 1989, V28, P3395 HCAPLUS
 - (10) Nakatani, Y; Chemical and Pharmaceutical Bulletin 1981, V29, P2261 HCAPLUS
 - (11) Rahman, M; Phytochemistry 1990, V29, P1971 HCAPLUS
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 - (13) Takeda, Y; Phytochemistry 1997, V44, P1335 HCAPLUS
 - (14) Tsukamoto, H; Chemical and Pharmaceutical Bulletin 1984, V32, P4482
 HCAPLUS
 - (15) Wray, V; Tetrahedron 1979, V35, P2275 HCAPLUS
 - (16) Yang, R; Natural Medicines 1997, V51, P134

IT 580-72-3, Matairesinol

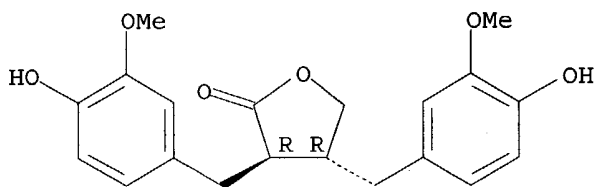
RL: BSU (Biological study, unclassified); PAC (Pharmacological
 activity); BIOL (Biological study)

(immunosuppressive constituents from Saussurea medusa)

RN 580-72-3 HCAPLUS

CN 2(3H)-Furanone, dihydro-3,4-bis[(4-hydroxy-3-methoxyphenyl)methyl]-,
 (3R,4R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



L83 ANSWER 8 OF 14 HCAPLUS COPYRIGHT 2004 ACS on STN

AN 2001:573545 HCAPLUS

DN 135:132430

ED Entered STN: 08 Aug 2001

TI Decreasing the intracellular level of β -catenin by administering
 hydroxymatairesinol, and therapeutic and diagnostic methods

IN Mutanen, Marja

PA Hormos Nutraceutical Oy Ltd., Finland

SO U.S., 7 pp.

CODEN: USXXAM

DT Patent
 LA English
 IC ICM A61K031-00
 NCL 514461000
 CC 1-6 (Pharmacology)
 Section cross-reference(s): 9

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 6271257	B1	20010807	US 2000-550602	20000417 <--
	WO 2001078720	A1	20011025	WO 2001-FI110	20010208 <--
	WO 2001078720	C1	20021212		
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG				
	RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
	EP 1299097	A1	20030409	EP 2001-905844	20010208 <--
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
	JP 2003530436	T2	20031014	JP 2001-576020	20010208 <--
PRAI	US 2000-550602	A	20000417 <--		
	WO 2001-FI110	W	20010208 <--		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
US 6271257	ICM	A61K031-00
	NCL	514461000

AB A method is provided for decreasing the intracellular, especially nuclear, level

of β -catenin in an individual. Also provided is a method for the prevention or treatment of a disease or condition in an individual, wherein the disease or condition is related to a mutant APC gene or to an elevated level of intracellular β -catenin. Specifically provided is a method for the treatment of familial adenomatous polyposis. Furthermore, the invention provides methods for screening a subject to determine if said subject is a carrier of a mutant APC gene, as well as methods for diagnosing an individual's predisposition for a disease or condition in an individual, the disease or condition being related to a mutant APC gene or to an elevated level of intracellular β -catenin.

ST **hydroxymatairesinol** therapeutic beta catenin redn; APC gene disease diagnosis therapy **hydroxymatairesinol**; familial adenomatous polyposis treatment **hydroxymatairesinol**

IT Gene, animal

RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)

(APC; Decreasing the intracellular level of β -catenin by administering **hydroxymatairesinol**, and therapeutic and diagnostic methods)

IT Antitumor agents

Mutation

Rye

(Decreasing the intracellular level of β -catenin by administering **hydroxymatairesinol**, and therapeutic and diagnostic methods)

IT Intestine, neoplasm

(adenoma; Decreasing the intracellular level of β -catenin by administering **hydroxymatairesinol**, and therapeutic and diagnostic methods)

IT Intestine, neoplasm

(familial polyposis; Decreasing the intracellular level of

β -catenin by administering **hydroxymatairesinol**, and therapeutic and diagnostic methods)

IT Catenins

RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)

(β -; Decreasing the intracellular level of β -catenin by administering **hydroxymatairesinol**, and therapeutic and diagnostic methods)

IT 20268-71-7, **Hydroxymatairesinol**

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(Decreasing the intracellular level of β -catenin by administering **hydroxymatairesinol**, and therapeutic and diagnostic methods)

RE.CNT 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD

RE

(1) Anon; WO 9213103 1992 HCAPLUS

(2) Barker; US 5998600 1999 HCAPLUS

(3) Bras; European Journal of Cancer Prevention 1999, V8(4), P305 MEDLINE

(4) Herter; Journal of Cancer Research and Clinical Oncology 1999, V125(5) HCAPLUS

(5) Kinzler; US 5709998 1998 HCAPLUS

(6) Mahmoud; Proceeding of the American Association for Cancer Research Annual Meeting 1999, V40, P530

(7) Saarinen; Nutrition and Cancer 2000, V36(2) HCAPLUS

IT 20268-71-7, **Hydroxymatairesinol**

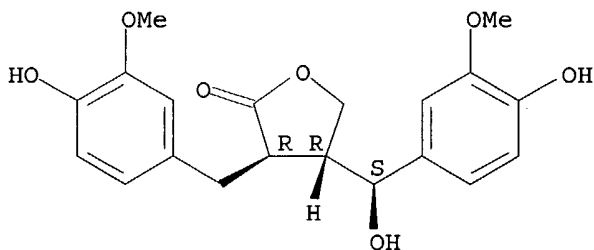
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(Decreasing the intracellular level of β -catenin by administering **hydroxymatairesinol**, and therapeutic and diagnostic methods)

RN 20268-71-7 HCAPLUS

CN 2(3H)-Furanone, dihydro-4-[(S)-hydroxy(4-hydroxy-3-methoxyphenyl)methyl]-3-[(4-hydroxy-3-methoxyphenyl)methyl]-, (3R,4R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-):



L83 ANSWER 9 OF 14 HCAPLUS COPYRIGHT 2004 ACS on STN

AN 2001:450166 HCAPLUS

DN 135:189741

ED Entered STN: 22 Jun 2001

TI Anti-AIDS Agents. 46. Anti-HIV Activity of Harman, an Anti-HIV Principle from *Symplocos setchuensis*, and Its Derivatives

AU Ishida, Junko; Wang, Hui-Kang; Oyama, Masayoshi; Cosentino, Mark L.; Hu, Chang-Qi; Lee, Kuo-Hsiung

CS Natural Products Laboratory School of Pharmacy, University of North Carolina, Chapel Hill, NC, 27599-7360, USA

SO Journal of Natural Products (2001), 64(7), 958-960
CODEN: JNPRDF; ISSN: 0163-3864

PB American Chemical Society

DT Journal

LA English
CC 1-3 (Pharmacology)
Section cross-reference(s): 63
AB **Matairesinol** and harman, identified from *Symplocos setchuensis*, were found to inhibit HIV replication in H9 lymphocyte cells. Anti-HIV evaluation of 28 derivs. of harman revealed that compound 19 showed potent activity with EC50 and therapeutic index values of 0.037 μ M and 210, resp.
ST antiHIV *Symplocos* harman deriv SAR
IT **Lymphocyte**
(H9; anti-HIV principle from *Symplocos setchuensis*, and its derivs.)
IT Anti-AIDS agents
Structure-activity relationship
Symplocos
(anti-HIV principle from *Symplocos setchuensis*, and its derivs.)
IT 244-63-3, 9H-Pyrido[3,4-b]indole 442-51-3, Harmine 486-84-0, Harman 487-03-6 525-41-7 6028-07-5 6415-92-5 6519-18-2 10593-56-3, 9H-Pyrido[3,4-b]indole, 7-ethoxy-1-methyl- 17019-08-8 24415-61-0 85645-27-8 143502-37-8 186790-81-8 199530-62-6 199530-63-7 200431-10-3 241809-11-0 257938-75-3 257938-76-4 257938-77-5 257938-78-6 257938-79-7 257938-81-1 257938-82-2 257938-85-5 257938-86-6 356790-36-8 356790-37-9
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(anti-HIV principle from *Symplocos setchuensis*, and its derivs.)

RE.CNT 11 THERE ARE 11 CITED REFERENCES AVAILABLE FOR THIS RECORD

RE

- (1) Abe, F; Chem Pharm Bull 1986, V34, P4340 HCAPLUS
- (2) Bodesheim, U; Pharmazie 1997, V52, P386 HCAPLUS
- (3) Eich, E; J Med Chem 1996, V39, P86 HCAPLUS
- (4) Eich, E; Planta Med 1990, V56, P506
- (5) Ishida, J; Bioorg Med Chem Lett 1999, V9, P3319 HCAPLUS
- (6) Kashiwada, Y; J Nat Prod 1998, V61, P1090 HCAPLUS
- (7) Miyazawa, M; Phytochemistry 1992, V31, P3666 HCAPLUS
- (8) Okuyama, E; Chem Pharm Bull 1995, V43, P2200 HCAPLUS
- (9) Rahman, M; Phytochemistry 1990, V29, P1971 HCAPLUS
- (10) Spath, E; Monatsh 1920, V41, P401 HCAPLUS
- (11) Xu, Z; J Nat Prod 2000, V63, P1712 HCAPLUS

L83 ANSWER 10 OF 14 HCAPLUS COPYRIGHT 2004 ACS on STN

AN 2000:725669 HCAPLUS

DN 133:286508

ED Entered STN: 13 Oct 2000

TI **Hydroxymatairesinol** preparations in cancer prevention

IN **Ahotupa, Markku**; Eckerman, Christer; **Kangas, Lauri**; Makela, Sari; Saarinen, Niina; Santti, Risto; Warri, Anni

PA **Hormos Nutraceutical Oy Ltd., Finland**

SO PCT Int. Appl., 43 pp.

CODEN: PIXXD2

DT Patent

LA English

IC ICM C07K307-32

ICS A61K031-00; A23L001-30

CC 63-6 (Pharmaceuticals)

Section cross-reference(s): 1, 17

FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2000059946	A1	20001012	WO 2000-FI181	20000309 <--
	W:	AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV,			

MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG,
 SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW,
 AM, AZ, BY, KG, KZ, MD, RU, TJ, TM

RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE,
 DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF,
 CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

US 6451849	B1	20020917	US 1999-281094	19990330 <--
EP 1165537	A1	20020102	EP 2000-909388	20000309 <--
EP 1165537	B1	20030122		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
BR 2000007187	A	20020219	BR 2000-7187	20000309 <--
JP 2002541158	T2	20021203	JP 2000-609455	20000309 <--
EE 200100507	A	20021216	EE 2001-507	20000309 <--
AT 231500	E	20030215	AT 2000-909388	20000309 <--
ES 2189738	T3	20030716	ES 2000-909388	20000309 <--
AU 767691	B2	20031120	AU 2000-31692	20000309 <--
NZ 512099	A	20040130	NZ 2000-512099	20000309 <--
ZA 2001004440	A	20020730	ZA 2001-4440	20010530 <--
BG 105856	A	20020430	BG 2001-105856	20010830 <--
NO 2001004639	A	20010925	NO 2001-4639	20010925 <--
PRAI US 1999-281094	A	19990330 <--		
WO 2000-FI181	W	20000309 <--		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
WO 2000059946	ICM	C07K307-32
	ICS	A61K031-00; A23L001-30
US 6451849	ECLA	A23L001/30B; A61K031/365 <--
AB	This invention relates to methods for prevention of cancers, certain non-cancer, hormone dependent diseases and/or cardiovascular diseases in a person, based on administering of hydroxymatairesinol to said person. The invention also concerns a method for increasing the level of enterolactone or another metabolite of hydroxymatairesinol in a person's serum thereby causing prevention of a cancer or a certain non-cancer, hormone dependent disease in a person, based on administering of hydroxymatairesinol to said person. Furthermore, this invention relates to pharmaceutical preps., food additives and food products comprising hydroxymatairesinol .	
ST	hydroxymatairesinol antitumor hormone disease gynecomastia	
IT	Lignans RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses) (antioxidant activity of; hydroxymatairesinol preps. in cancer prevention)	
IT	Prostate gland (benign hyperplasia; hydroxymatairesinol preps. in cancer prevention)	
IT	Bakery products (biscuits; hydroxymatairesinol preps. in cancer prevention)	
IT	Bakery products (cakes; hydroxymatairesinol preps. in cancer prevention)	
IT	Drug delivery systems (carriers; hydroxymatairesinol preps. in cancer prevention)	
IT	Intestine, neoplasm Intestine, neoplasm (colon, inhibitors; hydroxymatairesinol preps. in cancer prevention)	
IT	Antitumor agents (colon; hydroxymatairesinol preps. in cancer prevention)	
IT	Cardiovascular system (disease; hydroxymatairesinol preps. in cancer prevention)	

IT Hormones, animal, biological studies
RL: ADV (Adverse effect, including toxicity); BSU (Biological study, unclassified); BIOL (Biological study)
(diseases dependent on; **hydroxymatairesinol** prepns. in cancer prevention)

IT Urethra
(dyssynergia; **hydroxymatairesinol** prepns. in cancer prevention)

IT Mammary gland
(gynecomastia; **hydroxymatairesinol** prepns. in cancer prevention)

IT Disease, animal
(hormone-dependent; **hydroxymatairesinol** prepns. in cancer prevention)

IT Antioxidants
Antitumor agents
Bread
Butter
Candy
Cardiovascular agents
Confectionery
Food
Food additives
Margarine
(**hydroxymatairesinol** prepns. in cancer prevention)

IT Bladder
(instability; **hydroxymatairesinol** prepns. in cancer prevention)

IT Spruce (*Picea abies*)
(lignans of; **hydroxymatairesinol** prepns. in cancer prevention)

IT Peroxidation
(lipid; **hydroxymatairesinol** prepns. in cancer prevention)

IT Lipoproteins
RL: ADV (Adverse effect, including toxicity); FMU (Formation, unclassified); BIOL (Biological study); FORM (Formation, nonpreparative)
(low-d., oxidation products; **hydroxymatairesinol** prepns. in cancer prevention)

IT Urinary tract
(lower, disease; **hydroxymatairesinol** prepns. in cancer prevention)

IT Antitumor agents
(mammary gland; **hydroxymatairesinol** prepns. in cancer prevention)

IT Breakfast cereal
(muesli; **hydroxymatairesinol** prepns. in cancer prevention)

IT Mammary gland
Mammary gland
Prostate gland
Prostate gland
(neoplasm, inhibitors; **hydroxymatairesinol** prepns. in cancer prevention)

IT Bladder
(obstruction; **hydroxymatairesinol** prepns. in cancer prevention)

IT Blood serum
(oxidized LDL of; **hydroxymatairesinol** prepns. in cancer prevention)

IT Pigments, nonbiological
(oxidation of; **hydroxymatairesinol** prepns. in cancer prevention)

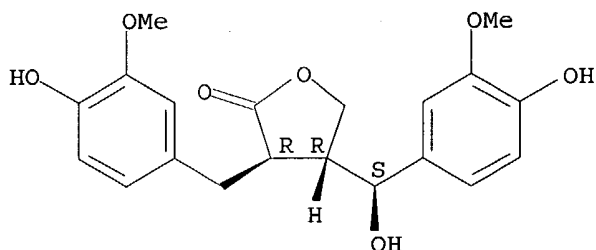
IT Vitamins
RL: RCT (Reactant); RACT (Reactant or reagent)
(oxidation of; **hydroxymatairesinol** prepns. in cancer prevention)

- IT Lipids, reactions
RL: RCT (Reactant); RACT (Reactant or reagent)
(peroxidn.; **hydroxymatairesinol** prepns. in cancer prevention)
- IT Antitumor agents
(prostate gland; **hydroxymatairesinol** prepns. in cancer prevention)
- IT Milk preparations
(yogurt; **hydroxymatairesinol** prepns. in cancer prevention)
- IT 20268-71-7, **Hydroxymatairesinol**
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); PEP (Physical, engineering or chemical process); **THU (Therapeutic use)**; BIOL (Biological study); PROC (Process); USES (Uses)
(**hydroxymatairesinol** prepns. in cancer prevention)
- IT 78473-71-9, **Enterolactone**
RL: BOC (Biological occurrence); BSU (Biological study, unclassified); MFM (Metabolic formation); **THU (Therapeutic use)**; BIOL (Biological study); FORM (Formation, nonpreparative); OCCU (Occurrence); USES (Uses)
(**hydroxymatairesinol** prepns. in cancer prevention)
- IT 9039-48-9, Aromatase
RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)
(inhibitors; **hydroxymatairesinol** prepns. in cancer prevention)

RE.CNT 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD

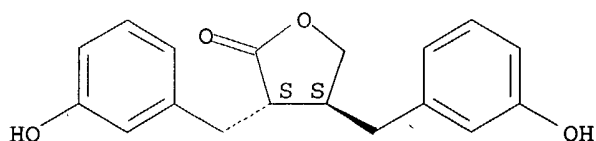
- RE
(1) Anon; JP A22000129256 2000 HCAPLUS
(2) Jorma, M; Models in Chemistry 1998, V135(4), P583
(3) Joshua, D; Plant Polyphenols 2: Chemistry, Biology, Pharmacology, Ecology, "Plant ligans and Health:Cancer chemoprevention and biotechnological opportunities" 1999, P675
(4) Kanoldt Arzneimittel GmbH; WO 9714670 A1 1997 HCAPLUS
- IT 20268-71-7, **Hydroxymatairesinol**
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); PEP (Physical, engineering or chemical process); **THU (Therapeutic use)**; BIOL (Biological study); PROC (Process); USES (Uses)
(**hydroxymatairesinol** prepns. in cancer prevention)
- RN 20268-71-7 HCAPLUS
CN 2(3H)-Furanone, dihydro-4-[(S)-hydroxy(4-hydroxy-3-methoxyphenyl)methyl]-3-[(4-hydroxy-3-methoxyphenyl)methyl]-, (3R,4R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



- IT 78473-71-9, **Enterolactone**
RL: BOC (Biological occurrence); BSU (Biological study, unclassified); MFM (Metabolic formation); **THU (Therapeutic use)**; BIOL (Biological study); FORM (Formation, nonpreparative); OCCU (Occurrence); USES (Uses)
(**hydroxymatairesinol** prepns. in cancer prevention)
- RN 78473-71-9 HCAPLUS
CN 2(3H)-Furanone, dihydro-3,4-bis[(3-hydroxyphenyl)methyl]-, (3R,4R)-rel- (9CI) (CA INDEX NAME)

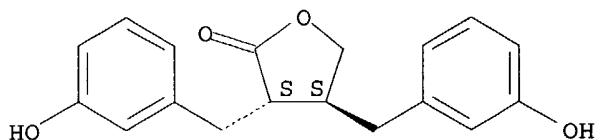
Relative stereochemistry.



- L83 ANSWER 11 OF 14 HCAPLUS COPYRIGHT 2004 ACS on STN
 AN 2000:517175 HCAPLUS
 DN 133:344260
 ED Entered STN: 31 Jul 2000
 TI **Hydroxymatairesinol**, a novel **enterolactone** precursor
 with antitumor properties from a coniferous tree (*Picea abies*)
 AU Saarinen, N. M.; Warri, A.; Makela, S. I.; Eckerman, C.; Reunanen, M.;
Ahotupa, M.; Salmi, S. M.; Franke, A. A.; **Kangas, L.**;
 Santti, R.
 CS Department of Anatomy and Medical Research Laboratory, University of
 Turku, Turku, FIN-20520, Finland
 SO Nutrition and Cancer (2000), 36(2), 207-214
 CODEN: NUCADQ; ISSN: 0163-5581
 PB Lawrence Erlbaum Associates, Inc.
 DT Journal
 LA English
 CC 1-6 (Pharmacology)
 Section cross-reference(s): 11
 AB The plant lignan **hydroxymatairesinol** (HMR) was extracted from Norway
 spruce (*P. abies*) and its metabolism and biol. actions were studied in
 animals. HMR, the most abundant single component of spruce lignans, was
 metabolized to **enterolactone** (ENL) as the major metabolite in
 rats after oral administration. The amts. of urinary ENL increased with
 the dose of HMR (3-50 mg/kg), and only minor amts. of unmetabolized HMR
 isomers and other lignans were found in urine. HMR (15 mg/kg/day for 51
 days, orally) decreased the number of growing tumors and increased the
 proportion of regressing and stabilized tumors in the rat
 dimethylbenz[a]anthracene-induced mammary tumor model. HMR (50 mg/kg) had
 no estrogenic or antiestrogenic activity in the uterine growth test in
 immature rats. HMR also produced no antiandrogenic responses in the
 growth of accessory sex glands in adult male rats. Neither ENL nor
 enterodiol had estrogenic or antiestrogenic activity via the classical
 α - or β -type estrogen receptor-mediated pathway in vitro at
 $<1.0 \mu\text{M}$. HMR was an effective antioxidant in vitro.
 ST **hydroxymatairesinol enterolactone** antitumor
 antioxidant *Picea abies*
 IT Androgens
 RL: BAC (Biological activity or effector, except adverse); BSU (Biological
 study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES
 (Uses)
 (antiandrogens; antitumor, antioxidant, and other properties of
hydroxymatairesinol, a novel **enterolactone** precursor,
 from *Picea abies*)
 IT Estrogens
 RL: BAC (Biological activity or effector, except adverse); BSU (Biological
 study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES
 (Uses)
 (antiestrogens; antitumor, antioxidant, and other properties of
hydroxymatairesinol, a novel **enterolactone** precursor,
 from *Picea abies*)
 IT Antioxidants
 Antitumor agents

- Spruce (*Picea abies*)
(antitumor, antioxidant, and other properties of
hydroxymatairesinol, a novel **enterolactone** precursor,
from *Picea abies*)
- IT **Lignans**
RL: BAC (Biological activity or effector, except adverse); BOC (Biological occurrence); BSU (Biological study, unclassified); PRP (Properties); PUR (Purification or recovery); THU (Therapeutic use); BIOL (Biological study); OCCU (Occurrence); PREP (Preparation); USES (Uses)
(antitumor, antioxidant, and other properties of
hydroxymatairesinol, a novel **enterolactone** precursor,
from *Picea abies*)
- IT **Estrogens**
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(antitumor, antioxidant, and other properties of
hydroxymatairesinol, a novel **enterolactone** precursor,
from *Picea abies*)
- IT **Estrogen receptors**
RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)
(**hydroxymatairesinol** from *Picea abies* effect on)
- IT **80226-00-2, Enterodiol**
RL: BAC (Biological activity or effector, except adverse); BPR (Biological process); BSU (Biological study, unclassified); MFM (Metabolic formation); BIOL (Biological study); FORM (Formation, nonpreparative); PROC (Process)
(antitumor, antioxidant, and other properties of
hydroxymatairesinol and its metabolite enterodiol, from *Picea abies*)
- IT **78473-71-9, Enterolactone**
RL: BAC (Biological activity or effector, except adverse); BPR (Biological process); BSU (Biological study, unclassified); MFM (Metabolic formation); BIOL (Biological study); FORM (Formation, nonpreparative); PROC (Process)
(antitumor, antioxidant, and other properties of
hydroxymatairesinol and its metabolite **enterolactone**,
from *Picea abies*)
- IT **20268-71-7P, Hydroxymatairesinol**
RL: BAC (Biological activity or effector, except adverse); BOC (Biological occurrence); BSU (Biological study, unclassified); PRP (Properties); PUR (Purification or recovery); **THU (Therapeutic use)**; BIOL (Biological study); OCCU (Occurrence); PREP (Preparation); USES (Uses)
(antitumor, antioxidant, and other properties of
hydroxymatairesinol, a novel **enterolactone** precursor,
from *Picea abies*)
- IT **78473-71-9, Enterolactone**
RL: BAC (Biological activity or effector, except adverse); BPR (Biological process); BSU (Biological study, unclassified); MFM (Metabolic formation); BIOL (Biological study); FORM (Formation, nonpreparative); PROC (Process)
(antitumor, antioxidant, and other properties of
hydroxymatairesinol and its metabolite **enterolactone**,
from *Picea abies*)
- RN **78473-71-9 HCAPLUS**
CN **2(3H)-Furanone, dihydro-3,4-bis[(3-hydroxyphenyl)methyl]-, (3R,4R)-rel-**
(9CI) (CA INDEX NAME)

Relative stereochemistry.



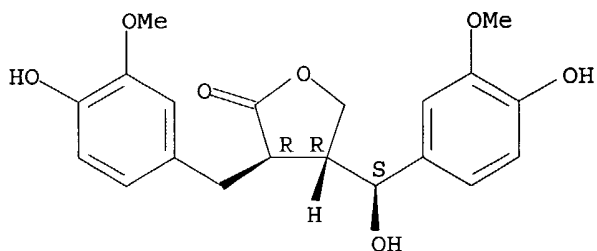
IT 20268-71-7P, **Hydroxymatairesinol**

RL: BAC (Biological activity or effector, except adverse); BOC (Biological occurrence); BSU (Biological study, unclassified); PRP (Properties); PUR (Purification or recovery); **THU (Therapeutic use)**; BIOL (Biological study); OCCU (Occurrence); PREP (Preparation); USES (Uses) (antitumor, antioxidant, and other properties of **hydroxymatairesinol**, a novel **enterolactone** precursor, from *Picea abies*)

RN 20268-71-7 HCAPLUS

CN 2-(3H)-Furanone, dihydro-4-[(S)-hydroxy(4-hydroxy-3-methoxyphenyl)methyl]-3-[(4-hydroxy-3-methoxyphenyl)methyl]-, (3R,4R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



L83 ANSWER 12 OF 14 HCAPLUS COPYRIGHT 2004 ACS on STN

AN 1992:649878 HCAPLUS

DN 117:249878

ED Entered STN: 26-Dec-1992

TI Effect of mammalian lignans of fMLP-induced oxidative bursts in human polymorphonuclear leukocytes

AU Morikawa, Masako; Fukuchi, Kazunori; Inoue, Michiko; Tsuboi, Minoru

CS Dep. Pharmacol., Tokyo Coll. Pharm., Hachioji, 192-03, Japan

SO Journal of Pharmacy and Pharmacology (1992), 44(10), 859-61

CODEN: JPPMAB; ISSN: 0022-3573

DT Journal

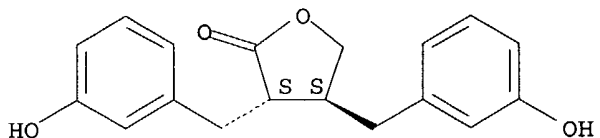
LA English

CC 15-10 (Immunochemistry)

AB The effects of the mammalian lignans, **enterolactone**, prestegane B and 2,3-dibenzylbutane-1,4-diol (DBB) were examined on superoxide production and luminol-dependent chemiluminescence (LCL) response in human polymorphonuclear leukocytes (PMNs). The three lignans had no direct effect on the responses of human PMNs. DBB and prestegane B enhanced the superoxide production and LCL response induced by formylmethionyl-leucyl-phenyl-alanine (fMLP), but **enterolactone** inhibited fMLP-induced effects. The effects of DBB were stronger than those of prestegane B and the effects of DBB were inhibited by bromophenacyl bromide, mepacrine, N-(6-aminophenyl)-5-chloro-1-naphthalene sulfonamide and trifluoroperazine, but not by gossypol, nordihydroguarectic acid, indomethacin, staurosporine, 1-(5-isoquinolinesulfonyl)-2-methylpiperazine dihydrochloride or (R,S)-2-methoxy-3-(octadecyl-carbamoyloxy)-propyl-2-(2-thiazolio)-ethylphosphate. These results suggest that DBB primes the responses of human PMNs, and the priming effect is caused by the activation of phospholipase A2- and

- Ca²⁺-calmodulin-pathways, but not by the activation of lipoxygenase, cyclo-oxygenase and protein kinase C or by the release of platelet activating factor.
- ST mammal lignan formyl peptide neutrophil respiration
- IT **Animal respiration**
(burst, formyl peptide-induced, of human polymorphonuclear leukocytes, lignans effect on)
- IT Hypohalous acids
RL: FORM (Formation, nonpreparative)
(formation of, formyl peptide-induced, in human polymorphonuclear leukocyte respiratory burst, lignans effect on)
- IT **Lignans**
RL: BIOL (Biological study)
(formyl peptide-induced oxidative burst by human polymorphonuclear leukocytes response to)
- IT Calmodulins
RL: BIOL (Biological study)
(in lignan modulation of formyl peptide-induced human polymorphonuclear leukocyte oxidative burst)
- IT **Neutrophil**
(respiratory burst of human, formyl peptide-induced, lignans effect on)
- IT Leukocyte
(polymorphonuclear, respiratory burst of human, formyl peptide-induced, lignans effect on)
- IT 11062-77-4, Superoxide
RL: FORM (Formation, nonpreparative)
(formation of, formyl peptide-induced, in human polymorphonuclear leukocyte respiratory burst, lignans effect on)
- IT 78473-71-9, Enterolactone 93376-04-6, Prestegane B
101787-58-0, 2,3-Dibenzylbutane-1,4-diol
RL: BIOL (Biological study)
(formyl peptide-induced oxidative burst by human polymorphonuclear leukocytes response to)
- IT 9001-84-7, Phospholipase A2
RL: BIOL (Biological study)
(in lignan modulation of formyl peptide-induced human polymorphonuclear leukocyte oxidative burst)
- IT 59880-97-6
RL: BIOL (Biological study)
(oxidative burst induction by, in human polymorphonuclear leukocytes, lignans effect on)
- IT 78473-71-9, Enterolactone
RL: BIOL (Biological study)
(formyl peptide-induced oxidative burst by human polymorphonuclear leukocytes response to)
- RN 78473-71-9 HCAPLUS
- CN 2(3H)-Furanone, dihydro-3,4-bis[(3-hydroxyphenyl)methyl]-, (3R,4R)-rel-(9CI) (CA INDEX NAME)

Relative stereochemistry.



TI Preparation of dibenzylbutanediol and dibenzyltetrahydrofuran derivatives
as immunosuppressants
IN Oka, Kitaro; Hirano, Toshihiko; Naito, Takashi; Hosaka, Kunio
PA Tsumura and Co., Japan
SO Jpn. Kokai Tokkyo Koho, 21 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
IC ICM A61K031-05
ICS A61K031-075; A61K031-22; A61K031-34
ICA C07C033-24; C07C039-15; C07C043-20; C07C069-21; C07D307-10; C07D307-33
CC 25-18 (Benzene, Its Derivatives, and Condensed Benzenoid Compounds)
Section cross-reference(s): 1, 27, 63

FAN.CNT 1

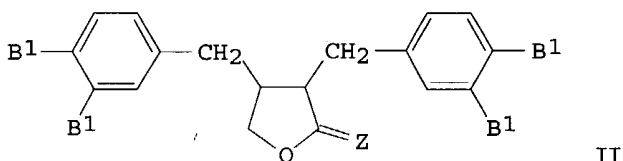
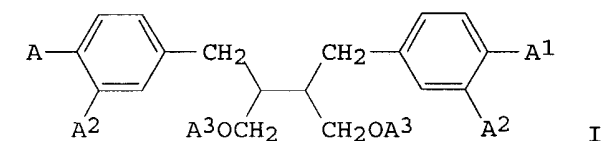
	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 02040323	A2	19900209	JP 1988-186853	19880728
PRAI	JP 1988-186853		19880728		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
JP 02040323	ICM	A61K031-05
	ICS	A61K031-075; A61K031-22; A61K031-34
	ICA	C07C033-24; C07C039-15; C07C043-20; C07C069-21; C07D307-10; C07D307-33

OS MARPAT 114:23554

GI



AB The title compds. (I, II; A, A1, A2 = H, OH, MeO; A3 = H, Me, Ac; B1 = H, MeO; Z = O, 2H) were prepared and formulated as immunosuppressants. A solution of hydrocinnamic acid in THF was added to BuLi-hexane at -72° with stirring under Ar, the solution warmed to -10°, cooled to -62°, a solution of iodine in THF was added to give (±)-2,3-dibenzylsuccinic acid, which was esterified with MeI in DMF under Ar to give the di-Me ester (III). Reduction of III gave diol (±)-I (A = A1 = A2 = A3 = H), which inhibited mitogen-stimulated human peripheral lymphocyte proliferation by 56.8%. Also prepared and tested were 17 addnl. I and II. Tablet, granular, and injection formulations were also given.

ST immunosuppressant dibenzylbutanediol dibenzyltetrahydrofuran prepn;
benzylbutanediol prepn immunosuppressant; benzyltetrahydrofuran prepn
immunosuppressant

IT **Immunosuppressants**

(dibenzylbutanediol and dibenzyltetrahydrofuran derivs.)

IT 501-52-0, Hydrocinnamic acid

RL: RCT (Reactant); RACT (Reactant or reagent)

(coupling reaction of)

IT 2316-26-9, 3,4-Dimethoxycinnamic acid 6099-04-3, m-Methoxycinnamic acid

RL: RCT (Reactant); RACT (Reactant or reagent)
 (hydrogenation of, in preparation of immunosuppressants)

IT 2107-70-2P, 3,4-Dimethoxyhydrocinnamic acid 10516-71-9P,
 3-Methoxydihydrocinnamic acid
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
 (Reactant or reagent)
 (preparation and coupling reaction of, in preparation of immunosuppressants)

IT 93609-04-2P
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
 (Reactant or reagent)
 (preparation and dehydration of, in preparation of immunosuppressants)

IT 93578-36-0P 93578-39-3P 119516-58-4P 126965-29-5P 126965-30-8P
 126965-33-1P
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
 (Reactant or reagent)
 (preparation and esterification of, in preparation of immunosuppressants)

IT 121955-01-9P
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
 (Reactant or reagent)
 (preparation and etherification of, in preparation of immunosuppressants)

IT 126965-31-9P 126981-89-3P
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
 (Reactant or reagent)
 (preparation and lactonization of, in preparation of immunosuppressants)

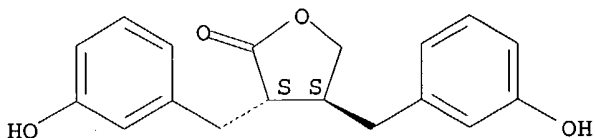
IT 81436-89-7P 119516-59-5P 121955-10-0P 126965-28-4P 126965-34-2P
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
 (Reactant or reagent)
 (preparation and reduction of, in preparation of immunosuppressants)

IT 77756-22-0P 77756-23-1P 78473-70-8P **78473-71-9P**
 93451-90-2P 119516-60-8P 121851-41-0P 121955-04-2P 121955-05-3P
 121955-06-4P 121955-07-5P 121955-09-7P 121986-75-2P 122045-61-8P
 122045-63-0P 123808-59-3P 123877-50-9P 131049-50-8P
 RL: BAC (Biological activity or effector, except adverse); BSU (Biological
 study, unclassified); SPN (Synthetic preparation); **THU (Therapeutic
 use)**; BIOL (Biological study); PREP (Preparation); USES (Uses)
 (preparation of, as immunosuppressant)

IT **78473-71-9P**
 RL: BAC (Biological activity or effector, except adverse); BSU (Biological
 study, unclassified); SPN (Synthetic preparation); **THU (Therapeutic
 use)**; BIOL (Biological study); PREP (Preparation); USES (Uses)
 (preparation of, as immunosuppressant)

RN 78473-71-9 HCAPLUS
 CN 2(3H)-Furanone, dihydro-3,4-bis[(3-hydroxyphenyl)methyl]-, (3R,4R)-rel-
 (9CI) (CA INDEX NAME)

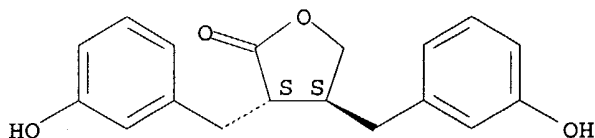
Relative stereochemistry.



L83 ANSWER 14 OF 14 HCAPLUS COPYRIGHT 2004 ACS on STN
 AN 1982:17711 HCAPLUS
 DN 96:17711
 ED Entered STN: 12 May 1984
 TI Lignan formation in man. Microbial involvement and possible roles in
 relation to cancer
 AU Setchell, K. D. R.; Borriello, S. P.; Gordon, H.; Lawson, A. M.; Harkness,
 R.; Morgan, D. M. L.; Kirk, D. N.; Adlercreutz, H.; Anderson, L. C.;

Axelson, M.
 CS Div. Clin. Chem., Clin. Res. Cent., Harrow, HA1 3UJ, UK
 SO Lancet (1981), 2(8236), 4-7
 CODEN: LANCAO; ISSN: 0023-7507
 DT Journal
 LA English
 CC 13-2 (Mammalian Biochemistry)
 Section cross-reference(s): 2, 4, 10
 AB Studies of the formation of 2 lignans (named **enterolactone** and enterodiol) in man, by means of selective antibiotic administration, confirmed that these new compds. are formed by intestinal microflora. Bacteriol. studies of stools collected after metronidazole administration indicated that clostridia may be responsible for the formation of these highly aromatic compds. The role of lignans in intestinal cancer is discussed.
 ST lignan formation intestine microorganism cancer; Clostridium intestine lignan formation cancer; urine feces **enterolactone** enterodiol
 IT Nomenclature, new natural products
 (enterodiol)
 IT Feces
 Urine
 (enterodiol and **enterolactone** of, intestinal microorganisms in relation to)
 IT Nomenclature, new natural products
 (**enterolactone**)
 IT Lymphocyte
 (**enterolactone** toxicity to)
 IT Lignans
 RL: FORM (Formation, nonpreparative)
 (formation of, intestinal microflora in, cancer in relation to)
 IT Clostridium
 (intestinal, in lignan formation, cancer in relation to)
 IT Neoplasm
 (of intestine, lignans in relation to)
 IT Intestine, neoplasm
 (cancer, lignans in relation to)
 IT Microorganism
 (intestinal, in lignan formation, cancer in relation to)
 IT 78473-71-9 80226-00-2
 RL: FORM (Formation, nonpreparative)
 (formation of, intestinal microorganisms in relation to)
 IT 78473-71-9
 RL: FORM (Formation, nonpreparative)
 (formation of, intestinal microorganisms in relation to)
 RN 78473-71-9 HCAPLUS
 CN 2(3H)-Furanone, dihydro-3,4-bis[(3-hydroxyphenyl)methyl]-, (3R,4R)-rel-(9CI) (CA INDEX NAME)

Relative stereochemistry.



=> => d all hitstr tot 188

DN 126:139494
 ED Entered STN: 15 Jan 1997
 TI Studies on differentiation inducers. VI. Lignan derivatives from *Arctium Fructus*. (2)
 AU Umehara, Kaoru; Nakamura, Mitsuhiro; Miyase, Toshio; Kuroyanagi, Masanori; Uneo, Akira
 CS Sch. Pharm. Sci., Univ. Shizuoka, Shizuoka, 422, Japan
 SO Chemical & Pharmaceutical Bulletin (1996), 44(12), 2300-2304
 CODEN: CPBTAL; ISSN: 0009-2363
 PB Pharmaceutical Society of Japan
 DT Journal
 LA English
 CC 1-3 (Pharmacology)
 Section cross-reference(s): 11, 26
 AB In the previous paper, we reported the differentiation inducing activities of lignoids from *Arctium Fructus* (the fruits of *Arctium lappa* L., *compositae*) against mouse myeloid leukemia cells (M1). We reinvestigated the active components of this extract and isolated three new dilignans. Furthermore, structure modifications were carried out using the most active lignan (arctigenin) and its structure-activity relationship was investigated. Its aliphatic esters were more effective in inducing the differentiation of M1 cells than its aromatic esters. Especially n-docanoate, which was the most active derivative, induced more than half of the M1 cells into **phagocytic** cells at a concentration of 2 μ M.
 ST *Arctium* lignan deriv prepn differentiation inducer; leukemia cell differentiation inducer lignan deriv
 IT New natural products
 (arctignan F (lignan))
 IT New natural products
 (arctignan G (lignan))
 IT New natural products
 (arctignan H (lignan))
 IT Cell differentiation
 (inducers; lignans from *Arctium Fructus* as myeloid leukemia differentiation inducers)
 IT Antitumor agents
 (leukemia; lignans from *Arctium Fructus* as myeloid leukemia differentiation inducers)
 IT *Arctium*
 Macrophage
Phagocytosis
 Structure-activity relationship
 (lignans from *Arctium Fructus* as myeloid leukemia differentiation inducers)
 IT Lignans
 RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study)
 (lignans from *Arctium Fructus* as myeloid leukemia differentiation inducers)
 IT Leukemia
 (myelogenous; lignans from *Arctium Fructus* as myeloid leukemia differentiation inducers)
 IT **580-72-3P, Matairesinol** 62333-08-8P, Lappaol A
 62359-60-8P, Lappaol B 64855-00-1P, Lappaol C 131400-96-9P, Isolappaol A 186541-65-1P, Arctignan F 186541-89-9P, Arctignan G 186543-11-3P, Arctignan H
 RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); PUR (Purification or recovery); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
 (lignans from *Arctium Fructus* as myeloid leukemia differentiation inducers)
 IT 69232-85-5P 74861-36-2P
 RL: BAC (Biological activity or effector, except adverse); BSU (Biological

study, unclassified); RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)
(lignans from *Arctium Fructus* as myeloid leukemia differentiation inducers)

IT 7770-78-7 20362-31-6

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); RCT (Reactant); THU (Therapeutic use); BIOL (Biological study); RACT (Reactant or reagent); USES (Uses)
(lignans from *Arctium Fructus* as myeloid leukemia differentiation inducers)

IT 25488-59-9P 73354-08-2P 119069-38-4P 186449-80-9P 186449-81-0P
186449-82-1P 186449-83-2P 186449-84-3P 186449-85-4P 186449-86-5P
186449-87-6P 186449-88-7P 186449-89-8P 186449-90-1P 186449-91-2P
186449-92-3P 186449-93-4P 186449-94-5P 186449-95-6P 186449-96-7P
186449-97-8P 186583-53-9P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(lignans from *Arctium Fructus* as myeloid leukemia differentiation inducers)

IT 41328-76-1 69394-17-8, Lappaol F

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(lignans from *Arctium Fructus* as myeloid leukemia differentiation inducers)

RE.CNT 13 THERE ARE 13 CITED REFERENCES AVAILABLE FOR THIS RECORD
RE

- (1) Freudenberg, K; Chem Ber 1957, V90, P2857
- (2) Hartwell, J; Fortschr Chem Org Naturst 1958, V15, P83 HCAPLUS
- (3) Kupchan, S; J Am Chem Soc 1973, V95, P1335 HCAPLUS
- (4) Landais, Y; Tetrahedron 1991, V47, P3787 HCAPLUS
- (5) Magae, J; Agric Biol Chem 1988, V52, P3143 HCAPLUS
- (6) Miyamura, C; FEBS Lett 1988, V234, P17
- (7) Nishibe, S; Chem Pharm Bull 1981, V29, P2078 HCAPLUS
- (8) Sugiyama, S; Chem Pharm Bull 1993, V41, P714 HCAPLUS
- (9) Umehara, K; Chem Pharm Bull 1992, V40, P401 HCAPLUS
- (10) Umehara, K; Chem Pharm Bull 1993, V41, P1774 HCAPLUS
- (11) Umehara, K; Chem Pharm Bull 1994, V42, P611 HCAPLUS
- (12) Umehara, K; Chem Pharm Bull 1995, V43, P1565 HCAPLUS
- (13) Yamamoto, Y; Exp Cell Res 1986, V164, P97

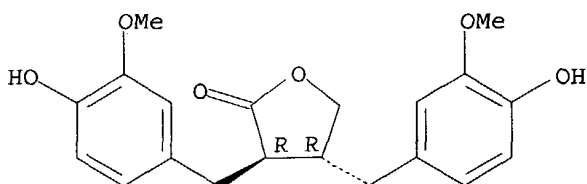
IT 580-72-3P, Matairesinol

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); PUR (Purification or recovery); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(lignans from *Arctium Fructus* as myeloid leukemia differentiation inducers)

RN 580-72-3 HCAPLUS

CN 2(3H)-Furanone, dihydro-3,4-bis[(4-hydroxy-3-methoxyphenyl)methyl]-, (3R,4R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



L88 ANSWER 2 OF 2 HCAPLUS COPYRIGHT 2004 ACS on STN
AN 1994:431077 HCAPLUS
DN 121:31077
ED Entered STN: 23 Jul 1994
TI Studies on differentiation-inducers from *Arctium Fructus*
AU Umehara, Kaoru; Sugawa, Aiko; Kuroyanagi, Masanori; Ueno, Akira; Taki, Takao
QS Sch. Pharm. Sci., Univ. Shizuoka, Shizuoka, 422, Japan
SO Chemical & Pharmaceutical Bulletin (1993), 41(10), 1774-9
CODEN: CPBTAL; ISSN: 0009-2363
BT Journal
LA English
CC 11-1 (Plant Biochemistry)
Section cross-reference(s): 1, 26
AB In the course of studying differentiation-inducers from plants, their isolation was performed from the methanolic extract of *Arctium Fructus* (the fruits of *Arctium lappa* L., Compositae), and then their **phagocytic** activity on differentiated mouse myeloid leukemia cells (M1) was monitored. Thirteen compds., including five new ones (arctignans A-E), were isolated as differentiation-inducers toward M1 cells. These consisted of two lignans, eight sesquiligans and three dilignans. Arctigenin (2) was the most effective compound of all those isolated, and it induced differentiation of M1 cells at a concentration 0.5 μ M. Sesquiligans were less effective than lignans and dilignans showed even weaker activity. These lignoids were inactive towards a human acute promyelocytic leukemia cell line (HL-60).
ST *Arctium* arctignan neoplasm inhibitor cell differentiation
IT Nomenclature, new natural products
(arctignan A (lignan))
IT Nomenclature, new natural products
(arctignan B (lignan))
IT Nomenclature, new natural products
(arctignan C (lignan))
IT Nomenclature, new natural products
(arctignan D (lignan))
IT Nomenclature, new natural products
(arctignan E (lignan))
IT Lignans
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study)
(from *Arctium lappa*, isolation and **phagocytic** activity of, on differentiated myeloid leukemia cells)
IT Cell differentiation
(inducers, lignans from *Arctium lappa* as, of tumor cells)
IT Molecular structure, natural product
(of arctignan A (lignan))
IT Molecular structure, natural product
(of arctignan B (lignan))
IT Molecular structure, natural product
(of arctignan C (lignan))
IT Molecular structure, natural product
(of arctignan D (lignan))
IT Molecular structure, natural product
(of arctignan E (lignan))
IT Lignans
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study)
(di-, from *Arctium lappa*, isolation and **phagocytic** activity of, on differentiated myeloid leukemia cells)
IT Neoplasm inhibitors
(leukemia, lignans from *Arctium lappa* as)
IT Lignans

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study)
 (sesqui-, from *Arctium lappa*, isolation and **phagocytic** activity of, on differentiated myeloid leukemia cells)

IT 580-72-3 7770-78-7, Arctigenin 20362-31-6 62333-08-8
 62359-60-8 64855-00-1 64855-02-3 69394-17-8 131400-96-9
 155661-08-8, Arctignan A 155661-09-9, Arctignan B 155661-10-2,
 Arctignan C 155661-11-3, Arctignan D 155661-12-4, Arctignan E

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study)
 (from *Arctium lappa*, isolation and **phagocytic** activity of, on differentiated myeloid leukemia cells)

IT 25488-59-9P 69232-85-5P 74861-36-2P 119069-38-4P

RL: SPN (Synthetic preparation); PREP (Preparation)
 (preparation and **phagocytic** activity of, on differentiated myeloid leukemia cells)

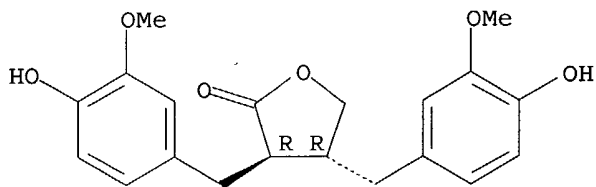
IT 580-72-3

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study)
 (from *Arctium lappa*, isolation and **phagocytic** activity of, on differentiated myeloid leukemia cells)

RN 580-72-3 HCAPLUS

CN 2(3H)-Furanone, dihydro-3,4-bis[(4-hydroxy-3-methoxyphenyl)methyl]-,
 (3R,4R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



=> => fil medline

FILE 'MEDLINE' ENTERED AT 14:32:05 ON 30 SEP 2004

FILE LAST UPDATED: 29 SEP 2004 (20040929/UP). FILE COVERS 1951 TO DATE.

On February 29, 2004, the 2004 MeSH terms were loaded. See HELP RLOAD for details. OLD MEDLINE now back to 1951.

MEDLINE thesauri in the /CN, /CT, and /MN fields incorporate the MeSH 2004 vocabulary. See <http://www.nlm.nih.gov/mesh/> and http://www.nlm.nih.gov/pubs/techbull/nd03/nd03_mesh.html for a description of changes.

This file contains CAS Registry Numbers for easy and accurate substance identification.

=> d all tot 1108

L108 ANSWER 1 OF 5 MEDLINE on STN

AN 2003070677 MEDLINE

DN PubMed ID: 12580104

TI New biflavonones and bioactive compounds from *Stellera chamaejasme* L.

AU Xu Z H; Qin G W; Li X Y; Xu R S

CS Shanghai Institute of Materia Medica, Shanghai Institutes of Biological Sciences, Chinese Academy of Sciences, Shanghai 200031, China.

SO Yao xue xue bao = Acta pharmaceutica Sinica, (2001 Sep) 36 (9)
669-71.
Journal code: 21710340R. ISSN: 0513-4870.

CY China
DT Journal; Article; (JOURNAL ARTICLE)
LA English
FS Priority Journals
EM 200402
ED Entered STN: 20030214
Last Updated on STN: 20040207
Entered Medline: 20040206

AB AIM: To study the chemical constituents of the root of *Stellera chamaejasme* L. METHODS: Various column chromatographies on silica gel and RP-18 were employed for isolation and purification. Structures of compounds were elucidated by spectral analysis. RESULTS: Eight lignans and three biflavonoids possessing a C-3/C-3" linkage were isolated. They are ruixianglangdusu A (1) and B (2), 4',4'',5,5'',7,7''-hexahydroxy-3,3''-biflavone (3), (+)-kusunokinin (4), liriorexinol-B (5), magnolenin C (6), (-)-pinorexinol monomethyl ether (7), (-)-pinorexinol (8), (+)-**matairesinol** (9), isohinokinin (10) and (-)-eudesmin (11). CONCLUSION: Compounds 1 and 2 are new biflavanones, 1 is enantiomeric to known chamaejasmenin C, 4, 6, 8, 9, 10 and 11 were isolated from this plant for the first time, and 7 was isolated from natural resources for the first time. In vitro bioassays showed that 3 and 8 exhibited antibacterial activity, and 1, 2, 9 and 11 exhibited immunomodulatory activity.

CT Adjuvants, Immunologic: CH, chemistry
Adjuvants, Immunologic: IP, isolation & purification
Adjuvants, Immunologic: PD, pharmacology
Anti-Infective Agents: CH, chemistry
Anti-Infective Agents: IP, isolation & purification
Anti-Infective Agents: PD, pharmacology
B-Lymphocytes: DE, drug effects
Flavanones: CH, chemistry
*Flavanones: IP, isolation & purification
Flavanones: PD, pharmacology
Molecular Structure
Plant Roots: CH, chemistry
*Plants, Medicinal: CH, chemistry
*Thymelaeaceae: CH, chemistry

CN 0 (Adjuvants, Immunologic); 0 (Anti-Infective Agents); 0 (Flavanones); 0 (ruixianglangdusu A); 0 (ruixianglangdusu B)

L108 ANSWER 2 OF 5 MEDLINE on STN

AN 2001451032 MEDLINE
DN PubMed ID: 11473435
TI Anti-AIDS agents. 46. Anti-HIV activity of harman, an anti-HIV principle from *Symplocos setchuensis*, and its derivatives.
AU Ishida J; Wang H K; Oyama M; Cosentino M L; Hu C Q; Lee K H
CS Natural Products Laboratory, School of Pharmacy, University of North Carolina, Chapel Hill, North Carolina 27599-7360, USA.
NC AI 33066 (NIAID)
SO Journal of natural products, (2001 Jul) 64 (7) 958-60.
Journal code: 7906882. ISSN: 0163-3864.

CY United States
DT Journal; Article; (JOURNAL ARTICLE)
LA English
FS Priority Journals
EM 200110
ED Entered STN: 20010813
Last Updated on STN: 20011015
Entered Medline: 20011011

AB **Matairesinol** (1) and harman (5), identified from *Symplocos*

setchuensis, were found to inhibit HIV replication in H9 lymphocyte cells. Anti-HIV evaluation of 28 derivatives of 5 revealed that compound 19 showed potent activity with EC(50) and therapeutic index values of 0.037 microm and 210, respectively.

CT Check Tags: Comparative Study; Human; Support, U.S. Gov't, P.H.S.
 Anti-HIV Agents: CH, chemistry
 *Anti-HIV Agents: IP, isolation & purification
 Anti-HIV Agents: PD, pharmacology
 Chromatography, High Pressure Liquid
 Drugs, Chinese Herbal: CH, chemistry
 *Drugs, Chinese Herbal: IP, isolation & purification
 Drugs, Chinese Herbal: PD, pharmacology
 Furans: CH, chemistry
 *Furans: IP, isolation & purification
 Furans: PD, pharmacology
 Harmine: AA, analogs & derivatives
 Harmine: CH, chemistry
 *Harmine: IP, isolation & purification
 Harmine: PD, pharmacology
 Lignans: CH, chemistry
 *Lignans: IP, isolation & purification
 Lignans: PD, pharmacology
 Lymphocytes: DE, drug effects
 Lymphocytes: ME, metabolism
 Molecular Structure
 *Plants, Medicinal: CH, chemistry
 Structure-Activity Relationship
 RN 442-51-3 (Harmine); 486-84-0 (harman); 580-72-3 (matairesinol)
 CN 0 (Anti-HIV Agents); 0 (Drugs, Chinese Herbal); 0 (Furans); 0 (Lignans); 0 (N-butylharman)

L108 ANSWER 3 OF 5 MEDLINE on STN

AN 2000296660 MEDLINE

DN PubMed ID: 10837017

TI Isoflavonoids and lignans have different potentials to modulate oxidative genetic damage in human colon cells.

AU Pool-Zobel B L; Adlercreutz H; Gleis M; Liegibel U M; Sittlington J; Rowland I; Wahala K; Rechkemmer G

CS Department of Nutritional Toxicology, Institute for Nutrition, Friedrich Schiller University, Dornburger Strabetae 25, 07743 Jena, Germany..
 b8pobe@uni-jena.de

SO Carcinogenesis, (2000 Jun) 21 (6) 1247-52.

Journal code: 8008055. ISSN: 0143-3334.

CY ENGLAND: United Kingdom

DT (CLINICAL TRIAL)

Journal; Article; (JOURNAL ARTICLE)
 (RANDOMIZED CONTROLLED TRIAL)

LA English

FS Priority Journals

EM 200008

ED Entered STN: 20000811

Last Updated on STN: 20000811

Entered Medline: 20000803

AB Polyphenolic compounds, including isoflavonoids and lignans, have been suggested to be chemopreventive on account of antioxidative properties. In this context it is of importance to have knowledge of their ability to reduce oxidative stress within target cells of tumorigenesis. Therefore, we investigated isoflavonoids and lignans for modulation of oxidative genetic damage in mammalian cells. H(2)O(2)-induced damage as well as endogenous DNA strand breaks and oxidized bases were determined after 30 min incubation of human colon cells with polyphenols using various modifications of the microgel electrophoresis assay (Comet assay). Enterolactone, a mammalian metabolite of plant lignans, was

additionally investigated for modulation of intracellular oxidative stress in NIH 3T3 cells using laser scanning microscopy. In vivo effects of rye crispbread (a source of lignans) were investigated in 12 human volunteers by determining genetic damage in lymphocytes and antioxidant activity in plasma (FRAP assay). Genistein induced DNA breaks in the human tumour cell line HT29 clone 19A (12.5-100 microM). The polyphenols (100 microM) did not reduce damage induced by 150 microM H₂O₂, indicating that they lacked antioxidative potential. At this concentration **enterolactone** also had no effect on intracellular oxidative stress induced by 31.25 and 125 microM H₂O₂. In contrast, **enterolactone**, dihydrogenistein and formononetin reduced endogenous oxidative DNA damage at 100 microM. Daily ingestion of nine slices (76.5 g/day) of rye crispbread per day (containing 41.8 and 33.0 microg/100 g dry weight secoisolariciresinol and **matairesinol**, respectively) for 2 weeks did not significantly reduce genetic damage in blood lymphocytes, nor was there a modulation of plasma antioxidant capacity. The moderate effects of high concentrations of the tested compounds on endogenous oxidative DNA damage and failure to prevent H₂O₂-induced damage are indicative of only marginal protective potential by antioxidant mechanisms. The genotoxic effects of genistein deserve further investigation.

CT Check Tags: Human; Support, Non-U.S. Gov't

3T3 Cells

Animals

*Antimutagenic Agents: PD, pharmacology

Bread

*Colon: DE, drug effects

Colon: PA, pathology

Comet Assay

Cross-Over Studies

*DNA Damage

*Flavonoids: PD, pharmacology

*Lignans: PD, pharmacology

Mice

***Oxidative Stress**

Secale cereale

CN 0 (Antimutagenic Agents); 0 (Flavonoids); 0 (Lignans)

L108 ANSWER 4 OF 5 MEDLINE on STN

AN 94366249 MEDLINE

DN PubMed ID: 8084211

TI Natural flavonoids and lignans are potent cytostatic agents against human leukemic HL-60 cells.

AU Hirano T; Gotoh M; Oka K

CS Department of Clinical Pharmacology, Tokyo College of Pharmacy, Japan.

SO Life sciences, (1994) 55 (13) 1061-9.

Journal code: 0375521. ISSN: 0024-3205.

CY ENGLAND: United Kingdom

DT Journal; Article; (JOURNAL ARTICLE)

LA English

FS Priority Journals

EM 199410

ED Entered STN: 19941021

Last Updated on STN: 19970203

Entered Medline: 19941011

AB Anti leukemic-cell efficacy of 28 naturally occurring and synthetic flavonoids and 11 naturally occurring lignans on human promyelocytic leukemic cell line HL-60 were examined using MTT assay methods. Differences between anti cell-proliferative activity and cytotoxicity of these compounds were compared with those of 4 clinical anti-cancer agents. Eight of the 28 flavonoids and 4 of the 11 lignans showed considerable suppressive effects on HL-60 cell growth with IC₅₀s ranging from 10-940 ng/ml. Among these compounds, genistein, honokiol, machilin A,

matairesinol, and arctigenin had the strongest effects with IC50s less than 100 ng/ml, which were almost equivalent to the effects of current anti-cancer agents. The flavonoid genistein and the lignans, however, showed little or no cytotoxicity against HL-60 cells as assessed by dye exclusion tests (LC50s > 2,900 ng/ml), whereas the regular anti-cancer agents had potent cytotoxicity. All of the flavonoids and lignans, except for machilin A and arctigenin, were less effective against growth of human T lymphocytic leukemia cell line MOLT-4. In addition, the flavonoid and the lignans showed little or no inhibiting activity on mitogen-induced blastogenesis of human peripheral-blood lymphocytes. The lignans and genistein were strongly suppressive against incorporations of [3H]thymidine, [3H]uridine, and [3H]leucine into HL-60 cells. These results showed that some of the naturally occurring flavonoids and lignans inhibited HL-60 cell growth with a non-toxic mechanism, possibly via cessation of DNA, RNA, and/or protein synthesis of the leukemic cells.

CT Check Tags: Comparative Study; Human

*Antineoplastic Agents: PD, pharmacology

Cell Division: DE, drug effects

Drug Screening Assays, Antitumor

*Flavonoids: PD, pharmacology

Leucine: ME, metabolism

*Leukemia, Promyelocytic, Acute: DT, drug therapy

Leukemia, Promyelocytic, Acute: ME, metabolism

Leukemia, Promyelocytic, Acute: PA, pathology

Leukemia, T-Cell: DT, drug therapy

Leukemia, T-Cell: PA, pathology

*Lignans: PD, pharmacology

Lymphocyte Activation: DE, drug effects

Lymphocytes: DE, drug effects

Lymphocytes: IM, immunology

Tetrazolium Salts

Thiazoles

Thymidine: ME, metabolism

Tumor Cells, Cultured: DE, drug effects

Uridine: ME, metabolism

RN 298-93-1 (thiazolyl blue); 50-89-5 (Thymidine); 58-96-8 (Uridine); 61-90-5 (Leucine)

CN 0 (Antineoplastic Agents); 0 (Flavonoids); 0 (Lignans); 0 (Tetrazolium Salts); 0 (Thiazoles)

L108 ANSWER 5 OF 5 MEDLINE on STN

AN 93085549 MEDLINE

DN PubMed ID: 1360514

TI Effect of mammalian lignans on fMLP-induced oxidative bursts in human polymorphonuclear leucocytes.

AU Morikawa M; Fukuchi K; Inoue M; Tsuboi M

CS Department of Pharmacology, Tokyo College of Pharmacy, Japan.

SO Journal of pharmacy and pharmacology, (1992 Oct) 44 (10) 859-61.

Journal code: 0376363. ISSN: 0022-3573.

CY ENGLAND: United Kingdom

DT Journal; Article; (JOURNAL ARTICLE)

LA English

FS Priority Journals

EM 199301

ED Entered STN: 19930129

Last Updated on STN: 19950206

Entered Medline: 19930104

AB We examined the effects of mammalian lignans, **enterolactone**, **prestegane B** and **2,3-dibenzylbutane-1,4-diol (DBB)** on superoxide production and luminol-dependent chemiluminescence (LCL) response in human polymorphonuclear leucocytes (PMNs). The three lignans had no direct effect on the responses of human PMNs. DBB and prestegane B enhanced the superoxide production and LCL response induced by formylmethionyl-leucyl-

phenylalanine (fMLP), but **enterolactone** inhibited fMLP-induced effects. The effects of DBB were stronger than those of prestegane B and the effects of DBB were inhibited by bromophenacyl bromide, mepacrine, N-(6-aminophenyl)-5-chloro-1-naphthalene, sulphonamide and trifluoroperazine, but not by gossypol, nordihydroguaretic acid, indomethacin, staurosporine, 1-(5-isoquinolinesulphonyl)-2-methylpiperazine dihydrochloride or (R,S)-2-methoxy-3-(octadecyl-carbamoyloxy)-propyl-2-(2-thiazoli o)-ethylphosphate. These results suggest that DBB primes the responses of human PMNs, and the priming effect is caused by the activation of phospholipase A2--and Ca(2+)-calmodulin-pathways, but not by the activation of lipooxygenase, cyclo-oxygenase and protein kinase C or by the release of platelet activating factor.

CT Check Tags: Human; In Vitro

Chemiluminescence

Lignans

*Lignin: PD, pharmacology

*N-Formylmethionine Leucyl-Phenylalanine: PD, pharmacology

*Neutrophils: DE, drug effects

*Respiratory Burst: DE, drug effects

Superoxides: AN, analysis

RN 11062-77-4 (Superoxides); 59880-97-6 (N-Formylmethionine
Leucyl-Phenylalanine); 9005-53-2 (Lignin)

CN 0 (Lignans)

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FILE RELOADED: 19 October 2003.

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L116 ANSWER 1 OF 7 BIOSIS COPYRIGHT (c) 2004 The Thomson Corporation. on STN

AN 2004:386345 BIOSIS

DN PREV200400386057

TI Prenatal developmental toxicity study with 7-hydroxymatairesinol
potassium acetate (HMRlignan) in rats.

AU Wolterbeek, A. P. M. [Reprint Author]; Roberts, A.; Korte, H.;
Unkila, M.; Waalkens-Berendsen, D. H.

CS Toxicol and Appl Pharmacol Dept, TNO Nutr and Food Res, Zeist, Netherlands
wolterbeek@voeding.tno.nl

SO Regulatory Toxicology and Pharmacology, (August 2004) Vol. 40, No. 1, pp.
1-8. print.

CODEN: RTOPDW. ISSN: 0273-2300.

DT Article

LA English

ED Entered STN: 29 Sep 2004

Last Updated on STN: 29 Sep 2004

AB Plant lignan 7-hydromatairesinol, a novel precursor of the mammalian

lignan **enterolactone** was evaluated in a prenatal developmental toxicity study conducted in the Wistar rat. Mated female rats were fed diets containing 0, 0.25, 1, and 4% (w/w) of **7-hydroxymatairesinol** in the form of potassium acetate complex (HMR lignan; potassium acetate level approximately 20% w/w within the preparation) for days 0-21 of gestation. Test substance intake was calculated to be 0.14-0.18, 0.46-0.74, and 1.19-2.93 g/kg body weight/day for the low, mid, and high-dose groups, respectively. The rats were sacrificed on day 21 of the gestation period and examined for standard parameters of reproductive performance (fecundity index, gestation index, number of corpora lutea, number of implantations, pre- and post-implantation loss, number of early- and late resorptions, number of live- and dead fetuses, sex-ratio and the weight of the reproductive organs). The fetuses were examined for external, visceral, and skeletal alterations. The results from this study showed no effects on reproductive performance or any treatment related findings following external, visceral, and skeletal examination of the fetuses. However, approximately half of the mated dams of the high-dose failed to thrive due to an unexpected large decrease in their food intake, and were sacrificed early. Body weights of the remaining animals of the high-dose group were decreased. Food consumption was decreased in all treatment groups during the first three days of the gestation period as a result of decreased palatability of the feed. In conclusion, the no-observed-effect level (NOEL) for maternal effects was 1%, whereas the NOEL for fetal development following daily oral HMR lignan administration throughout the gestation was equivalent to 4% in the diet. Copyright 2004 Elsevier Inc. All rights reserved.

CC Nutrition - General studies, nutritional status and methods 13202
 Reproductive system - Physiology and biochemistry 16504
 Toxicology - General and methods 22501
 Development and Embryology - General and descriptive 25502
 IT Major Concepts
 Nutrition; Reproduction; Toxicology
 IT Chemicals & Biochemicals
 7-hydroxymatairesinol potassium acetate; lignan
 enterolactone; plant lignan; potassium acetate
 IT Miscellaneous Descriptors
 prenatal developmental toxicity study; reproductive performance
 ORGN Classifier
 Muridae 86375
 Super Taxa
 Rodentia; Mammalia; Vertebrata; Chordata; Animalia
 Organism Name
 Wistar rat (common): adult, fetus, female, male
 Taxa Notes
 Animals, Chordates, Mammals, Nonhuman Vertebrates, Nonhuman Mammals,
 Rodents, Vertebrates
 RN 127-08-2 (potassium acetate)

L116 ANSWER 2 OF 7 BIOSIS COPYRIGHT (c) 2004 The Thomson Corporation. on STN
 AN 2004:181735 BIOSIS
 DN PREV200400185021
 TI Food additive or product or a pharmaceutical preparation, comprising
 hydroxymatairesinol.
 AU Ahotupa, Markku [Inventor, Reprint Author]; Eckerman, Christer
 [Inventor]; Kangas, Lauri [Inventor]; Makela, Sari [Inventor];
 Saarinen, Niina [Inventor]; Santti, Risto [Inventor]; Warri, Anni
 [Inventor]
 CS Turku, Finland
 ASSIGNEE: Hormos Nutraceutical Oy Ltd., Turku, Finland
 PI US 6689809 February 10, 2004
 SO Official Gazette of the United States Patent and Trademark Office Patents,
 (Feb 10 2004) Vol. 1279, No. 2. <http://www.uspto.gov/web/menu/patdata.html>
 . e-file.

ISSN: 0098-1133 (ISSN print).

DT Patent
LA English
ED Entered STN: 7 Apr 2004
Last Updated on STN: 7 Apr 2004
AB This invention relates to methods for prevention of cancers, certain non-cancer, hormone dependent diseases and/or cardiovascular diseases in a person, based on administering of **hydroxymatairesinol** to said person. The invention also concerns a method for increasing the level of **enterolactone** or another metabolite of **hydroxymatairesinol** in a person's serum thereby causing prevention of a cancer or a certain non-cancer, hormone dependent disease in a person, based on administering of **hydroxymatairesinol** to said person. Furthermore, this invention relates to pharmaceutical preparations, food additives and food products comprising **hydroxymatairesinol**.
NCL 514473000
CC Pathology - Therapy 12512
Nutrition - General studies, nutritional status and methods 13202
Food technology - General and methods 13502
Cardiovascular system - Heart pathology 14506
Cardiovascular system - Blood vessel pathology 14508
Endocrine - General 17002
Pharmacology - General 22002
Pharmacology - Cardiovascular system 22010
Pharmacology - Endocrine system 22016
Neoplasms - Pathology, clinical aspects and systemic effects 24004
Neoplasms - Therapeutic agents and therapy 24008
IT Major Concepts
Foods; Pharmacology
IT Diseases
cancer: neoplastic disease
Neoplasms (MeSH)
IT Diseases
cardiovascular disease: heart disease, vascular disease
Cardiovascular Diseases (MeSH)
IT Diseases
hormone dependent disease: endocrine disease
IT Chemicals & Biochemicals
enterolactone; hydroxymatairesinol:
antineoplastic-drug, cardiovascular-drug, hormone-drug, food additive
RN 78473-71-9 (**enterolactone**)
20268-71-7 (**hydroxymatairesinol**)
L116 ANSWER 3 OF 7 BIOSIS COPYRIGHT (c) 2004 The Thomson Corporation. on STN
AN 2002:583081 BIOSIS
DN PREV200200583081
TI USE OF **HYDROXYMATAIRESINOL** FOR PREVENTION OF CANCERS,
NON-CANCER, HORMONE DEPENDENT DISEASES AND CARDIOVASCULAR DISEASES BY
HYDROXYMATAIRESINOL, AND A PHARMACEUTICAL PREPARATION, FOOD
ADDITIVE AND FOOD PRODUCT COMPRISING **HYDROXYMATAIRESINOL**.
AU Ahotupa, Markku [Inventor, Reprint author]; Eckerman, Chester
[Inventor]; Kangas, Lauri [Inventor]; Makela, Sari [Inventor];
Saarinen, Niina [Inventor]; Santti, Risto [Inventor]; Warri, Anni
[Inventor]
CS Turku, Finland
ASSIGNEE: Hormos Nutraceutical Oy Ltd., Turku, Finland
PI US 6451849 September 17, 2002
SO Official Gazette of the United States Patent and Trademark Office Patents,
(Sep. 17, 2002) Vol. 1262, No. 3. [http://www.uspto.gov/web/menu/patdata.ht](http://www.uspto.gov/web/menu/patdata.html)
ml. e-file.
CODEN: OGUPE7. ISSN: 0098-1133.
DT Patent
LA English

ED Entered STN: 13 Nov 2002
Last Updated on STN: 13 Nov 2002
AB This invention relates to methods for prevention of cancers, certain non-cancer, hormone dependent diseases and/or cardiovascular diseases in a person, based on administering of **hydroxymatairesinol** to said person. The invention also concerns a method for increasing the level of **enterolactone** or another metabolite of **hydroxymatairesinol** in a person's serum thereby causing prevention of a cancer or a certain non-cancer, hormone dependent disease in a person, based on administering of **hydroxymatairesinol** to said person. Furthermore, this invention relates to pharmaceutical preparations, food additives and food products comprising **hydroxymatairesinol**.
NCL 514473000
CC Pharmacology - General 22002
Neoplasms - Pathology, clinical aspects and systemic effects 24004
Neoplasms - Therapeutic agents and therapy 24008
IT Major Concepts
Oncology (Human Medicine, Medical Sciences); Pharmacology
IT Diseases
cancer: neoplastic disease, drug therapy
Neoplasms (MeSH)
IT Chemicals & Biochemicals
hydroxymatairesinol: antineoplastic-drug
RN 20268-71-7 (**hydroxymatairesinol**)

L116 ANSWER 4 OF 7 BIOSIS COPYRIGHT (c) 2004 The Thomson Corporation. on STN
AN 2000:422437 BIOSIS
DN PREV200000422437
TI A novel treatment for lupus nephritis: Lignan precursor derived from flax.
AU Clark, W. F. [Reprint author]; Muir, A. D.; Westcott, N. D.; Parbtani, A.
CS Division of Nephrology, London Health Sciences Centre, 375 South Street, London, Ontario, N6A 4G5, Canada
SO Lupus, (2000) Vol. 9, No. 6, pp. 429-436. print.
ISSN: 0961-2033.
DT Article
LA English
ED Entered STN: 4 Oct 2000
Last Updated on STN: 8 Jan 2002
AB Background: Flaxseed has renoprotective effects in animal and human lupus nephritis. We have recently extracted the lignan precursor (secoisolariresinol diglucoside) (SDG) to determine if this more palatable derivative of flaxseed would exert renoprotection similar to the whole flaxseed in the aggressive MRL/lpr lupus mouse model. Methods: 131 MRL/lpr mice were randomly assigned to saline gavage, 600, 1200 and 4800 mug lignan gavage groups. At 7 weeks, 6 animals underwent platelet aggregating factor (PAF) lethal challenge and 40 were studied with urine collection to determine the levels of secoisolariresinol, enterodiol and **enterolactone** in the gavaged animals. A baseline study of 10 saline gavaged animals took place at 6 weeks. 25 animals in the saline gavage, 600 and 1200 mug lignan groups were studied at 14 and 22 weeks for GFR, spleen **lymphocyte** S-phase and organ weight studies.
Results: Metabolic studies indicated that secoisolariresinol is the major metabolite absorbed and the lowest lignan dose provides a lengthening in survival for the PAF lethal challenge. Body weight, fluid and water intake studies demonstrated that the lignan was well tolerated. Changes in proteinuria, GFR and renal size showed a time- and dose-dependent protection for the lignan precursor. Cervical lymph node size and spleen **lymphocyte** cells in the S-phase demonstrated modest dose-dependent reductions in the lignan gavaged groups. Conclusion: SDG was converted in the gut to secoisolariresinol, which was absorbed and well tolerated by the MRL/lpr mice. Renoprotection was evidenced, in a dose-dependent fashion, by a significant delay in the onset of proteinuria with preservation in GFR and renal size. This study suggests that SDG may have

a therapeutic role in lupus nephritis.

CC Bones, joints, fasciae, connective and adipose tissue - Pathology 18006
 Digestive system - Physiology and biochemistry 14004
 Urinary system - Pathology 15506
 Immunology - Immunopathology, tissue immunology 34508

IT Major Concepts
 Clinical Immunology (Human Medicine, Medical Sciences); Urology (Human Medicine, Medical Sciences)

IT Parts, Structures, & Systems of Organisms
 gut: digestive system

IT Diseases
 lupus nephritis: connective tissue disease, immune system disease, urologic disease, treatment
 Lupus Nephritis (MeSH)

IT Diseases
 proteinuria: urologic disease
 Proteinuria (MeSH)

IT Chemicals & Biochemicals
 lignan precursor: derived from flax

IT Miscellaneous Descriptors
 body weight; glomerular filtration rate

ORGN Classifier
 Hominidae 86215
 Super Taxa
 Primates; Mammalia; Vertebrata; Chordata; Animalia
 Organism Name
 human
 Taxa Notes
 Animals, Chordates, Humans, Mammals, Primates, Vertebrates

ORGN Classifier
 Muridae 86375
 Super Taxa
 Rodentia; Mammalia; Vertebrata; Chordata; Animalia
 Organism Name
 mouse: animal model
 Taxa Notes
 Animals, Chordates, Mammals, Nonhuman Vertebrates, Nonhuman Mammals, Rodents, Vertebrates

L116 ANSWER 5 OF 7 BIOSIS COPYRIGHT (c) 2004 The Thomson Corporation. on STN

AN 2000:331401 BIOSIS

DN PREV200000331401

TI **Hydroxymatairesinol**, a novel **enterolactone** precursor with antitumor properties from coniferous tree (*Picea abies*).

AU Saarinen, N. M. [Reprint author]; Warri, A. [Reprint author]; Makela, S. I. [Reprint author]; Eckerman, C.; Reunanen, M.; **Ahotupa, M.** [Reprint author]; Salmi, S. M. [Reprint author]; Franke, A. A.; **Kangas, L.**; Santti, R. [Reprint author]

CS Department of Anatomy and Medical Research Laboratory, Institute of Biomedicine, University of Turku, FIN-20520, Turku, Finland

SO Nutrition and Cancer, (2000) Vol. 36, No. 2, pp. 207-216. print.
 CODEN: NUCADQ. ISSN: 0163-5581.

DT Article

LA English

ED Entered STN: 2 Aug 2000
 Last Updated on STN: 7 Jan 2002

AB The potential for the extraction of the plant lignan **hydroxymatairesinol** (HMR) in large scale from Norway spruce (*Picea abies*) has given us the opportunity to study the metabolism and biological actions of HMR in animals. HMR, the most abundant single component of spruce lignans, was metabolized to **enterolactone** (ENL) as the major metabolite in rats after oral administration. The amounts of urinary ENL increased with the dose of HMR (from 3 to 50 mg/kg), and only

minor amounts of unmetabolized HMR isomers and other lignans were found in urine. HMR (15 mg/kg body wt po) given for 51 days decreased the number of growing tumors and increased the proportion of regressing and stabilized tumors in the rat dimethylbenz(a)anthracene-induced mammary tumor model. HMR (50 mg/kg body wt) did not exert estrogenic or antiestrogenic activity in the uterine growth test in immature rats. HMR also showed no antiandrogenic responses in the growth of accessory sex glands in adult male rats. Neither ENL nor enterodiol showed estrogenic or antiestrogenic activity via a classical alpha- or beta-type estrogen receptor-mediated pathway in vitro at <1.0 μ M. HMR was an effective antioxidant in vitro.

CC Pharmacognosy and pharmaceutical botany 54000
 Biochemistry studies - General 10060
 Biophysics - General 10502
 Pharmacology - General 22002
 Neoplasms - General 24002
 Plant physiology - Chemical constituents 51522

IT Major Concepts
 Biochemistry and Molecular Biophysics; Pharmacognosy (Pharmacology);
 Tumor Biology

IT Diseases
 cancer: neoplastic disease
 Neoplasms (MeSH)

IT Chemicals & Biochemicals
 hydroxymatairesinol: antitumor properties,
 enterolactone precursor, oral administration, quantitative
 structure-activity relationships

ORGN Classifier
 Coniferopsida 25102
 Super Taxa
 Gymnospermae; Spermatophyta; Plantae
 Organism Name
 Picea abies [Norway spruce]: medicinal plant
 Taxa Notes
 Gymnosperms, Plants, Spermatophytes, Vascular Plants

ORGN Classifier
 Muridae 86375
 Super Taxa
 Rodentia; Mammalia; Vertebrata; Chordata; Animalia
 Organism Name
 Sprague-Dawley rat: male
 Taxa Notes
 Animals, Chordates, Mammals, Nonhuman Vertebrates, Nonhuman Mammals,
 Rodents, Vertebrates

RN 20268-71-7 (hydroxymatairesinol)

L116 ANSWER 6 OF 7 BIOSIS COPYRIGHT (c) 2004 The Thomson Corporation. on STN

AN 2000:331149 BIOSIS

DN PREV200000331149

TI Isoflavonoids and lignans have different potentials to modulate oxidative genetic damage in human colon cells.

AU Pool-Zobel, Beatrice L. [Reprint author]; Adlercreutz, Herman; Gleib, Michael; Liegibel, Ute M.; Sittlington, Julie; Rowland, Ian; Wahala, Kristiina; Rechkemmer, Gerhard

CS Department of Nutritional Toxicology, Institute for Nutrition, Friedrich Schiller University, Dornburger Strasse 25, 07743, Jena, Germany

SO Carcinogenesis (Oxford), (June, 2000) Vol. 21, No. 6, pp. 1247-1252.
 print.

CODEN: CRNGDP. ISSN: 0143-3334.

DT Article

LA English

ED Entered STN: 2 Aug 2000

Last Updated on STN: 7 Jan 2002

AB Polyphenolic compounds, including isoflavonoids and lignans, have been suggested to be chemopreventive on account of antioxidative properties. In this context it is of importance to have knowledge of their ability to reduce oxidative stress within target cells of tumorigenesis. Therefore, we investigated isoflavonoids and lignans for modulation of oxidative genetic damage in mammalian cells. H₂O₂-induced damage as well as endogenous DNA strand breaks and oxidized bases were determined after 30 min incubation of human colon cells with polyphenols using various modifications of the microgel electrophoresis assay (Comet assay). **Enterolactone**, a mammalian metabolite of plant lignans, was additionally investigated for modulation of intracellular oxidative stress in NIH 3T3 cells using laser scanning microscopy. In vivo effects of rye crispbread (a source of lignans) were investigated in 12 human volunteers by determining genetic damage in **lymphocytes** and antioxidant activity in plasma (FRAP assay). Genistein induced DNA breaks in the human tumour cell line HT29 clone 19A (12.5-100 µM). The polyphenols (100 µM) did not reduce damage induced by 150 µM H₂O₂, indicating that they lacked antioxidative potential. At this concentration **enterolactone** also had no effect on intracellular oxidative stress induced by 31.25 and 125 µM H₂O₂. In contrast, **enterolactone**, dihydrogenistein and formononetin reduced endogenous oxidative DNA damage at 100 µM. Daily ingestion of nine slices (76.5 g/day) of rye crispbread per day (containing 41.8 and 33.0 µg/100 g dry weight secoisolariciresinol and **matairesinol**, respectively) for 2 weeks did not significantly reduce genetic damage in blood **lymphocytes**, nor was there a modulation of plasma antioxidant capacity. The moderate effects of high concentrations of the tested compounds on endogenous oxidative DNA damage and failure to prevent H₂O₂-induced damage are indicative of only marginal protective potential by antioxidant mechanisms. The genotoxic effects of genistein deserve further investigation.

CC Cytology - Animal 02506
 Cytology - Human 02508
 Genetics - Animal 03506
 Genetics - Human 03508
 Pathology - Therapy 12512
 Digestive system - Physiology and biochemistry 14004
 Pharmacology - Clinical pharmacology 22005
 Neoplasms - Pathology, clinical aspects and systemic effects 24004
 Neoplasms - Therapeutic agents and therapy 24008

IT Major Concepts
 Genetics; Pharmacology; Tumor Biology

IT Parts, Structures, & Systems of Organisms
 colon cells: digestive system, drug-induced oxidative genetic damage
 modulation, hydrogen peroxide-induced DNA damage, in-vitro culture

IT Chemicals & Biochemicals
 biochanin A: antineoplastic-drug, chemopreventive agent; daidzein:
 antineoplastic-drug, chemopreventive agent; enterodiol:
 antineoplastic-drug, chemopreventive agent; **enterolactone**:
 antineoplastic-drug, chemopreventive agent; equol: antineoplastic-drug,
 chemopreventive agent; formononetin: antineoplastic-drug,
 chemopreventive agent; genistein: antineoplastic-drug, chemopreventive
 agent

ORGN Classifier
 Hominidae 86215
 Super Taxa
 Primates; Mammalia; Vertebrata; Chordata; Animalia
 Organism Name
 HT-29 cell line: clone 19, drug-induced oxidative genetic damage
 modulation, human colon cancer cell line, hydrogen peroxide-induced DNA
 damage, in-vitro model system
 human: normal subjects
 Taxa Notes

Animals, Chordates, Humans, Mammals, Primates, Vertebrates
 ORGN Classifier
 Muridae 86375
 Super Taxa
 Rodentia; Mammalia; Vertebrata; Chordata; Animalia
 Organism Name
 NIH3T3 cell line: drug-induced oxidative genetic damage modulation,
 hydrogen peroxide-induced DNA damage, in-vitro model system, mouse
 fibroblast cell line
 Taxa Notes
 Animals, Chordates, Mammals, Nonhuman Vertebrates, Nonhuman Mammals,
 Rodents, Vertebrates
 RN 491-80-5 (biochanin A)
 486-66-8 (daidzein)
 80226-00-2 (enterodiol)
 78473-71-9 (enterolactone)
 531-95-3 (equol)
 485-72-3 (formononetin)

 L116 ANSWER 7 OF 7 BIOSIS COPYRIGHT (c) 2004 The Thomson Corporation. on STN
 AN 1994:452533 BIOSIS
 DN PREV199497465533
 TI Natural flavonoids and lignans are potent cytostatic agents against human
 leukemic HL-60 cells.
 AU Hirano, Toshihiko; Gotoh, Manabu; Oka, Kitaro
 CS Department Clinical Pharmacology, Tokyo College Pharmacy, 1432-1 Hachioji,
 Tokyo 192-03, Japan
 SO Life Sciences, (1994) Vol. 55, No. 13, pp. 1061-1069.
 CODEN: LIFSAK. ISSN: 0024-3205.
 DT Article
 LA English
 ED Entered STN: 24 Oct 1994
 Last Updated on STN: 16 Dec 1994
 AB Anti leukemic-cell efficacy of 28 naturally occurring and synthetic
 flavonoids and 11 naturally occurring lignans on human promyelocytic
 leukemic cell line HL-60 were examined using MTT assay methods.
 Differences between anti cell-proliferative activity and cytotoxicity of
 these compounds were compared with those of 4 clinical anti-cancer agents.
 Eight of the 28 flavonoids and 4 of the 11 lignans showed considerable
 suppressive effects on HL-60 cell growth with IC-50s ranging from 10-940
 ng/ml. Among these compounds, genistein, honokiol, machilin A,
 matairesinol, and arctigenin had the strongest effects with IC-50s
 less than 100 ng/ml, which were almost equivalent to the effects of
 current anti-cancer agents. The flavonoid genistein and the lignans,
 however, showed little or no cytotoxicity against HL-60 cells as assessed
 by dye exclusion tests (LC-50s gt 2,900ng/ml), whereas the regular
 anti-cancer agents had potent cytotoxicity. All of the flavonoids and
 lignans, except for machilin A and arctigenin, were less effective against
 growth of human T **lymphocytic** leukemia cell line MOLT-4. In
 addition, the flavonoid and the lignans showed little or no inhibiting
 activity on mitogen-induced blastogenesis of human peripheral-blood
 lymphocytes. The lignans and genistein were strongly suppressive
 against incorporations of (3H)thymidine, (3H)uridine, and (3H)leucine into
 HL-60 cells. These results showed that some of the naturally occurring
 flavonoids and lignans inhibited HL-60 cell growth with a non-toxic
 mechanism, possibly via cessation of DNA, RNA, and/or protein synthesis of
 the leukemic cells.
 CC Cytology - Human 02508
 Biochemistry studies - General 10060
 Biochemistry studies - Nucleic acids, purines and pyrimidines 10062
 Biochemistry studies - Proteins, peptides and amino acids 10064
 Pathology - Therapy 12512
 Metabolism - Proteins, peptides and amino acids 13012

Metabolism - Nucleic acids, purines and pyrimidines 13014
Blood - Blood cell studies 15004
Blood - Blood, lymphatic and reticuloendothelial pathologies 15006
Blood - Lymphatic tissue and reticuloendothelial system 15008
Pharmacology - Clinical pharmacology 22005
Pharmacology - Blood and hematopoietic agents 22008
Neoplasms - Therapeutic agents and therapy 24008
Neoplasms - Blood and reticuloendothelial neoplasms 24010
Development and Embryology - Morphogenesis 25508
Immunology - Immunopathology, tissue immunology 34508
Plant physiology - Chemical constituents 51522
Pharmacognosy and pharmaceutical botany 54000

IT Major Concepts
Blood and Lymphatics (Transport and Circulation); Cell Biology;
Clinical Endocrinology (Human Medicine, Medical Sciences); Development;
Hematology (Human Medicine, Medical Sciences); Metabolism; Oncology
(Human Medicine, Medical Sciences); Pharmacognosy (Pharmacology);
Pharmacology

IT Chemicals & Biochemicals
GENISTEIN; HONOKIOL; MACHILIN A; **MATAIRESINOL**; ARCTIGENIN

IT Miscellaneous Descriptors
ANTINEOPLASTIC-DRUG; ARCTIGENIN; CELL GROWTH; CYTOTOXICITY; GENISTEIN;
HONOKIOL; IMMUNOSUPPRESSION; MACHILIN A; **MATAIRESINOL**;
NUCLEIC ACID SYNTHESIS; PERIPHERAL BLOOD **LYMPHOCYTE**;
POTENTIAL THERAPEUTIC APPLICATION; PROTEIN SYNTHESIS

ORGN Classifier
Aristolochiaceae 25595
Super Taxa
Dicotyledones; Angiospermae; Spermatophyta; Plantae
Organism Name
Asarum sieboldi
Taxa Notes
Angiosperms, Dicots, Plants, Spermatophytes, Vascular Plants

ORGN Classifier
Hominidae 86215
Super Taxa
Primates; Mammalia; Vertebrata; Chordata; Animalia
Organism Name
Hominidae
Taxa Notes
Animals, Chordates, Humans, Mammals, Primates, Vertebrates

ORGN Classifier
Lauraceae 26245
Super Taxa
Dicotyledones; Angiospermae; Spermatophyta; Plantae
Organism Name
Machilus thunbergii
Taxa Notes
Angiosperms, Dicots, Plants, Spermatophytes, Vascular Plants

ORGN Classifier
Organisms 00500
Super Taxa
Organisms
Organism Name
Forsythia viridissima
Taxa Notes
Organisms

ORGN Classifier
Pedaliaceae 26525
Super Taxa
Dicotyledones; Angiospermae; Spermatophyta; Plantae
Organism Name
Sesamum indicum

Taxa Notes
 Angiosperms, Dicots, Plants, Spermatophytes, Vascular Plants
 ORGN Classifier
 Saxifragaceae 26745
 Super Taxa
 Dicotyledones; Angiospermae; Spermatophyta; Plantae
 Organism Name
 Saxifragaceae
 Taxa Notes
 Angiosperms, Dicots, Plants, Spermatophytes, Vascular Plants
 RN 446-72-0 (GENISTEIN)
 35354-74-6 (HONOKIOL)
 110269-50-6 (MACHILIN A)
 580-72-3 (MATAIRESINOL)
 7770-78-7 (ARCTIGENIN)

=> => fil wpix

FILE 'WPIX' ENTERED AT 14:42:49 ON 30 SEP 2004
 COPYRIGHT (C) 2004 THE THOMSON CORPORATION

FILE LAST UPDATED: 28 SEP 2004 <20040928/UP>
 MOST RECENT DERWENT UPDATE: 200462 <200462/DW>
 DERWENT WORLD PATENTS INDEX SUBSCRIBER FILE, COVERS 1963 TO DATE

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 HIT STRUCTURES WITHIN THE BIBLIOGRAPHIC DOCUMENT <<<

=> d all abeq tech abex

L124 ANSWER 1 OF 1 WPIX COPYRIGHT 2004 THE THOMSON CORP on STN
 AN 2003-658464 [62] WPIX
 DNC C2003-179746
 TI Inhibiting overactivity of **phagocytes** or **lymphocytes**
 in individual used for treating or preventing an acute
 ischemia-reperfusion injury or chronic condition, e.g. rheumatoid
 arthritis, by administering lignan.
 DC B03 D13
 IN AHOTUPA, M; ERIKSSON, J; KANGAS, L; KOMI, J; KORTE, H; PERALA, M; UNKILA,
 M; PERAELAE, M
 PA (AHOT-I) AHOTUPA M; (ERIK-I) ERIKSSON J; (KANG-I) KANGAS L; (KOMI-I) KOMI
 J; (KORT-I) KORTE H; (PERA-I) PERALA M; (UNKI-I) UNKILA M; (HORM-N) HORMOS
 NUTRACEUTICAL LTD OY
 CYC 101
 PI US 2003100514 A1 20030529 (200362)* 10 A61K031-365
 WO 2003045376 A1 20030605 (200362) EN A61K031-34
 RW: AT BE BG CH CY CZ DE DK EA EE ES FI FR GB GH GM GR IE IT KE LS LU

MC MW MZ NL OA PT SD SE SK SL SZ TR TZ UG ZM ZW
W: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU CZ DE DK
DM DZ EC EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR
KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ OM PH PL PT
RO RU SD SE SG SI SK SL TJ TM TN TR TT TZ UA UG US UZ VC VN YU ZA
ZM ZW

AU 2002365519 A1 20030610 (200419) A61K031-34

ADT US 2003100514 A1 US 2001-991971 20011126; WO 2003045376 A1 WO 2002-FI936
20021121; AU 2002365519 A1 AU 2002-365519 20021121

FDT AU 2002365519 A1 Based on WO 2003045376

PRAI US 2001-991971 20011126

IC ICM A61K031-34; A61K031-365

ICS A61K031-05

AB US2003100514 A UPAB: 20030928

NOVELTY - Overactivity of **phagocytes** or **lymphocytes** in
an individual is inhibited by administering a lignan.

DETAILED DESCRIPTION - Inhibiting overactivity of **phagocytes**
or **lymphocytes** in an individual by administering a lignan, where
the **phagocytes** are **neutrophils** and the lignan is
hydroxymatairesinol and/or **matairesinol**; the
phagocytes are cells of **myeloid** origin and the lignan is
enterolactone and/or **hydroxymatairesinol**; or the
lymphocytes are **T-lymphocytes** and the lignan is
hydroxymatairesinol, **matairesinol**, and/or
enterolactone.

ACTIVITY - Vasotropic; Cardiant; Cerebroprotective; Antibacterial;
Immunosuppressive; Antirheumatic; Antiarthritic; Antiinflammatory;
Anti-HIV; Antipsoriatic; Antiallergic; Antiparkinsonian; Nootropic;
Neuroprotective; Osteopathic; Antidiabetic; Antiarteriosclerotic;
Ophthalmological.

MECHANISM OF ACTION - None given.

USE - The invention is used for inhibiting overactivity of
phagocytes or **lymphocytes** in an individual, thus
treating or preventing an acute ischemia- reperfusion injury or a chronic
condition. Acute ischemia-reperfusion injury is an injury in myocardial
infarction, stroke, transplantation, adult respiratory distress syndrome,
ischemic heart disease, or endotoxic or hemorrhagic shock. Chronic
condition includes rheumatoid arthritis, allergic conditions including
inflammatory bowel disease or an inflammatory condition of the skin, HIV,
AIDS, psoriasis, Parkinson's disease, Alzheimer's disease, autoimmune
disease, type I or type II diabetes, hypercholesterolemic atherosclerosis,
cataract, osteoporosis or amyotrophic lateral sclerosis. (All claimed)

ADVANTAGE - The invention decreases the formation of **reactive**
oxygen species. It lowers the risk, prevents or treats
other diseases or conditions, which are not due to lipid, DNA, or protein
oxidation but which are due to overactive **neutrophils**.

DESCRIPTION OF DRAWING(S) - The figure shows the **oxidative**
burst and myeloperoxidase activity.

Dwg.1/4

FS CPI

FA AB; GI; DCN

MC CPI: B07-A02A; B10-E04C; B14-A01; B14-A02B1; B14-C03; B14-C06; B14-C09;
B14-F01; B14-F02; B14-F07; B14-G02; B14-J01; B14-J01A3; B14-N03;
B14-N17C; B14-S04; D03-H01T2

TECH UPTX: 20030928

TECHNOLOGY FOCUS - BIOLOGY - Preferred Component: The **phagocytes**
are cells of **myeloid** origin, the TNF-alpha release of which is
reduced, and the lignan is **enterolactone** or
hydroxymatairesinol.

ABEX UPTX: 20030928

ADMINISTRATION - Dosage comprises 10-2000 mg/day, preferably 100-600
mg/day for adult persons, and may be administered orally. Oral dosage
forms includes powders, granules, capsules, tablets, caplets, lozenges,

liquids, elixirs, emulsions, and suspensions.

EXAMPLE - Monocytes were isolated from human peripheral blood mononuclear cells by magnetic sorting. The cells were pre-incubated with the lignans **matairesinol** and **enterolactone** (1-100 micro M) or interleukin-10 (IL-10) (100 U/ml) for 24 hours before addition of LPS (1 micro g/ml) into cell culture. After additional 48 hours the levels of TNF from culture supernatants were measured by enzyme linked immunosorbent assays (ELISA). Results showed that **matairesinol** and **enterolactone** were effective at concentration of 100 micro M as the positive control, IL-10.

=> d his

(FILE 'HOME' ENTERED AT 13:25:41 ON 30 SEP 2004)
SET COST OFF

FILE 'HCAPLUS' ENTERED AT 13:26:09 ON 30 SEP 2004

L1 1 S US20030100514/PN OR US2001-991971#/AP,PRN

FILE 'REGISTRY' ENTERED AT 13:26:42 ON 30 SEP 2004

L2 3 S 580-72-3 OR 20268-71-7 OR 78473-71-9
E C20H2207/MF
E C20H2207/MF
L3 37 S E3 AND 46.150.18/RID AND OC4/ES AND 3/NR
L4 26 S L3 AND 3 METHOXY
L5 26 S L4 AND 4 HYDROXY
L6 21 S L5 AND FURANONE
SEL RN 1 6 7 8 10 11 16 20
L7 8 S E1-E8
L8 7 S L7 NOT 718614-97-2
SEL RN 4 5
L9 5 S L8 NOT E9-E10
L10 32 S L3 NOT L9
E C20H2206/MF
L11 56 S E3 AND OC4/ES AND 46.150.18/RID AND 3/NR
L12 12 S L11 AND 4 HYDROXY AND 3 METHOXY AND FURANONE
L13 4 S L12 NOT (D/ELS OR 13C# OR LABELED)
E C18H1804/MF
L14 37 S E3 AND OC4/ES AND 46.150.18/RID AND 3/NR
L15 8 S L14 AND 3 HYDROXY AND BIS AND FURANONE
L16 5 S L15 NOT (D/ELS OR LABELED OR 13C)
L17 14 S L2,L9,L13,L16
L18 9 S L17 AND (?MATAIRESINOL? OR ?ENTEROLACTON?)/CNS
L19 5 S L17 NOT L18
L20 14 S L17-L19
SEL RN
L21 8 S E1-E14/CRN

FILE 'HCAPLUS' ENTERED AT 13:39:29 ON 30 SEP 2004

L22 527 S L20
L23 583 S ENTEROLACTON? OR HYDROXYMATAIRESINOL? OR MATAIRESINOL?
L24 640 S L22,L23
E AHOTUPA M/AU
L25 91 S E3-E5
E ERIKSSON J/AU
L26 221 S E3-E11,E34-E36
E KANGAS L/AU
L27 127 S E3-E5,E8-E11
E UNKILA M/AU
L28 48 S E3-E5
E KOMI J/AU
L29 12 S E3-E6

L30 21 S E3,E4,E6
 E PERALA M/AU
 L31 23 S E3,E4,E10
 E KORTE H/AU
 L32 27 S E3-E19
 L33 16 S L24 AND L25-L32
 E PHAGOCYTE/CT
 L34 3427 S E3,E12
 E E12+ALL
 E E2+ALL
 L35 32274 S E5+NT
 E NEUTROPHIL/CT
 E E3+ALL
 L36 29239 S E24,E23
 E T CELL/CT
 E E4+ALL
 L37 40180 S E20-E23
 L38 70058 S E19+NT
 E E18+ALL
 L39 169033 S E19,E18+NT
 E MYELOID/CT
 E E11+ALL
 L40 2697 S E2
 L41 4 S L24 AND L34-L40
 E ANIMAL RESPIRATION/CT
 L42 1613 S E3 (L) BURST
 E RESPIRATION, ANIMAL/CT
 L43 1421 S E4
 E REACTIVE OXYGEN/CT
 E E4+ALL
 L44 22365 S E3
 L45 2 S L24 AND L42-L44

FILE 'REGISTRY' ENTERED AT 14:09:41 ON 30 SEP 2004

L46 1 S OXYGEN/CN

FILE 'HCAPLUS' ENTERED AT 14:09:52 ON 30 SEP 2004

L47 1 S L24 AND L46
 E LIGNAN/CT
 E E4+ALL
 L48 356 S L24 AND E2
 L49 356 S L24 AND E2+NT
 L50 4 S L41,L45,L47
 L51 1 S L50 AND L33
 L52 3 S L50 AND L48,L49
 L53 4 S L50-L52
 L54 65 S L20 (L) (THU OR DMA OR PAC OR PKT)/RL
 L55 160 S L24 AND (PHARMACEUT? OR PHARMACOL? OR PATHOL? OR IMMUN?)/SC,S
 L56 164 S L54,L55
 L57 9 S L56 AND L33
 L58 3 S L56 AND L53
 L59 4 S L53,L58
 L60 8 S L57 NOT L59

FILE 'REGISTRY' ENTERED AT 14:15:46 ON 30 SEP 2004

L61 1 S 9003-99-0

FILE 'HCAPLUS' ENTERED AT 14:15:57 ON 30 SEP 2004

L62 2 S L61 AND L24
 L63 1 S L24 AND MYELOPEROXIDASE
 L64 6 S L24 AND ?PEROXIDASE?
 L65 6 S L62-L64

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L66      17 S L59,L60,L65
L67      14 S L66 AND (PD<=20011126 OR PRD<=20011126 OR AD<=20011126)
L68      3 S L66 NOT L67
          SEL DN AN 1 3 9 11 12 14 L67
L69      8 S L67 NOT E1-E18
L70      11 S L68,L69
          E TRANPLANTATION/CT
          E TRANSPLANTATION/CT
L71      812 S E3
          E TRANSPLANT/CT
L72      494 S E3
L73      87407 S E5+OLD,NT,PFT,RT
L74      5085 S E61
L75      76222 S E69+OLD,NT,PFT,RT
L76      812 S E72,E74
          E E3+ALL
          E E2+ALL
L77      7719 S E7-E16
L78      35079 S E6+NT
L79      6674 S E43+NT
L80      30585 S E42+NT
L81      5 S L24 AND L71-L80
L82      4 S L81 NOT AROMATASE/TI
L83      14 S L70,L82 AND L1,L22-L45,L47-L60,L62-L82
          SEL HIT RN

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FILE 'REGISTRY' ENTERED AT 14:24:16 ON 30 SEP 2004

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L84      6 S E1-E6
L85      4 S L84 AND L20
L86      2 S L84 AND L61,L46

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FILE 'REGISTRY' ENTERED AT 14:24:50 ON 30 SEP 2004

FILE 'HCAPLUS' ENTERED AT 14:25:17 ON 30 SEP 2004

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L87      3 S L24 AND ?PHAGOCYT?
L88      2 S L87 NOT L83

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FILE 'MEDLINE' ENTERED AT 14:26:28 ON 30 SEP 2004

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L89      117 S L20
L90      215 S L23
L91      231 S L89,L90
L92      0 S L91 AND ?PHAGOCYT?
          E PHAGOCYTE/CT
          E E29+ALL
L93      1 S L91 AND E6+NT
L94      1 S L91 AND NEUTROPHIL
          E MYELOID CELL/CT
          E E8+ALL
L95      1 S L91 AND E3+NT
          E LYMPHOCYTE/CT
L96      1 S L91 AND E6+NT
L97      0 S L91 AND E21+NT
L98      0 S L91 AND E43+NT
L99      0 S L91 AND E109+NT
L100     3 S L91 AND E157+NT
          E T CELL/CT
          E T CELLS/CT
          E E3+ALL
L101     0 S L91 AND E2+NT
          E E2+ALL
L102     3 S L91 AND E15+NT
          E REACTIVE OXYGEN/CT
L103     0 S L91 AND E4+NT

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E E4+ALL
L104 1 S L91 AND E13+NT
L105 2 S L91 AND E12+NT
E RESPIRATION BURST/CT
E RESPIRATORY BURST/CT
L106 1 S L91 AND E3+NT
L107 6 S L92-L106
L108 5 S L107 AND PY<=2001

FILE 'MEDLINE' ENTERED AT 14:32:05 ON 30 SEP 2004

FILE 'BIOSIS' ENTERED AT 14:32:12 ON 30 SEP 2004

L109 338 S L24
L110 4 S L109 AND (AHOTUPA ? OR ERKISSON ? OR KANGAS ? OR UNKILA ? OR
L111 0 S L109 AND (PHAGOCYT? OR NEUTROPHIL?)
L112 3 S L109 AND (T CELL OR LYMPHOCYT?)
L113 0 S L109 AND MYELOID CELL
L114 0 S L109 AND MYELOID
L115 0 S L109 AND (HEMATOPO? OR HAEMATOPO?)
L116 7 S L110,L112

FILE 'BIOSIS' ENTERED AT 14:34:56 ON 30 SEP 2004

FILE 'WPIX' ENTERED AT 14:35:03 ON 30 SEP 2004

L117 51 S L23/BIX
E ENTERLOCATONE/DCN
E HYDROXYATAIRESINOL/DCN
E HYDROXYMATAIRESINOL/DCN
E MATAIRESINOL/DCN
E MATAIRESINOL/CN
L118 2 S E3
E HYDROXYMATAIRESINOL/CN
L119 1 S E3
E ENTERLOCATONE/CN
E ENTEROLACTONE/DCN
E ENTEROLACTONE/CN
L120 2 S E3
L121 5 S L118-L120
L122 0 S 3 4 BIS 3 HYDROXY BENZYL DIHYDRO FURAN 2 ONE
L123 0 S 3 4 BIS 4 HYDROXY 3 METHOXY BENZYL DIHYDRO FURAN 2 ONE
L124 1 S L117 AND (PHAGOCYT? OR NEUTROPHIL? OR MYELOID? OR T CELL OR L

FILE 'WPIX' ENTERED AT 14:42:49 ON 30 SEP 2004

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